2011-2012 AMMUAL Report MISSOURI DEPARTMENT OF CONSERVATION





Annual Report



Missouri Department of Conservation Fiscal Year July 1, 2011 to June 30, 2012

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Annual Report

his summary of the Annual Report highlights the Missouri Department of Conservation's accomplishments and expenditures from July 1,2011, through June 30,2012. These accomplishments are based on the Department's five main goals. Not only does this summary highlight the accomplishments of the Department, but it emphasizes that Missourians care about conserving forests, fish, and wildlife; that we work with Missourians and for Missourians to sustain healthy forests, fish, and wildlife; that we help people discover nature; that conservation makes Missouri a great place to hunt and fish; and that conservation pays by enriching our economy and quality of life.



Healthy Forests, Fish, and Wildlife

Elk Reintroduction

Wild elk returned to Missouri after 150 years. MDC, the Kentucky Department of Fish and Wildlife Resources, and the Virginia Department of Game and Inland Fisheries captured elk in Kentucky during December and January (2010-11 and 2011–12). MDC and the Missouri Department of Agriculture developed protocols to ensure the health of livestock and wildlife once elk were released. After health protocols were met, 34 elk were moved to Missouri in 2011 and 35 (plus a newborn calf) in 2012. The elk were kept in a holding facility on Peck Ranch Conservation Area (CA) for about a month to allow acclimation and to complete health protocols. In 2011, all elk were released on Peck Ranch CA. In 2012, some elk were released on Peck Ranch CA while others were moved to a release site on The Nature Conservancy property. Currently, auto routes are open on parts of Peck Ranch CA to allow visitors to view elk.

Hellbender Restoration

Both Ozark and eastern hellbenders are listed as state endangered, and on Nov. 7, 2011, the Ozark hellbender was added to the federal endangered species list. MDC's Shepherd of the Hills Hatchery and the Ron Goellner Center for Hellbender Conservation at the Saint Louis Zoo are devoted to hellbender propagation. In the fall of 2011 was the world's first breeding of a captive Ozark hellbender at the Saint Louis Zoo. About 150 Ozark hellbenders were hatched.

Wildlife Code Enforcement

MDC enforces laws in the Wildlife Code, as well as other state laws for the safe public use of MDC-owned lands. Conservation agents contacted 200,714 hunters and anglers last year to ensure compliance and provide regulation information. During these contacts, agents noted 27,288 resource violations, issued 3,631 written warnings and made 7,256 arrests.

Black Bear Research

In 2010, MDC, in cooperation with Mississippi State University and with funding from the Federal Aid in Wildlife Restoration Act, began the first Missouri black bear research project. From July 2010 to May 2012, 45 bears were captured and tagged. Of those, 28 were males and 17 were females. Bears that were large enough were fitted with a radio collar. Our population estimate is 108 bears for the southwest portion of the study area.

National Fish Habitat Initiative

The National Fish Habitat Partnership has included Table Rock Lake on their ten waters to watch list. The designation is due to on-going efforts to improve habitat through the National Fish Habitat Initiative and More Fish Campaign. There have been 1,460 brush structures, 104 rock piles, 49 stump fields, 11 rock/ stump combos, and 26 rock fences installed.

Chronic Wasting Disease in Missouri

Chronic wasting disease (CWD) is a fatal disease that affects deer, elk, and other cervids. Since it's discovery in 2010, CWD has been found in 11 captive cervids and five free-ranging deer in Macon and Linn counties. As part of the MDC's ongoing efforts to monitor the disease, we will continue testing hunterharvested deer in the CWD containment zone. MDC also is working with area landowners to limit the prevalence and spread of CWD. With the help of hunters, MDC has tested more than 35,000 free-ranging deer for CWD statewide since 2002.

Manage Lands in Public Trust

Community Fisheries Assistance

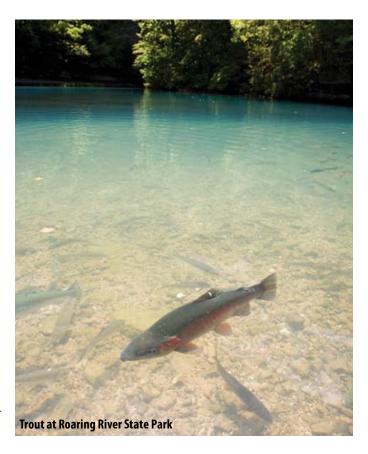
Through the Community Assistance Program and the Corporate and Agency Partnership Program, MDC has agreements (usually 25-year) with cities, counties, state and federal agencies, businesses, foundations, schools, and colleges to provide fisheries management at lakes and ponds and cooperatively develop and maintain facilities for anglers at lakes and streams. MDC has agreements with 117 partners for the cooperative management of 168 public lakes, 42 stream-access areas, four lake-access areas, and 10 aquatic education ponds.

Cold-Water Fish Hatcheries

MDC stocked 1,451,984 trout among five trout parks, 12 stream special management areas, and Lake Taneycomo. Anglers purchased 310,212 daily adult tags, 62,007 daily youth tags, and 88,699 trout fishing permits.

Warm-Water Fish Hatcheries

In 2011, 6.4 million fish were stocked in public waters. Highlights include: 216,821 hybrid striped bass, 5,346 muskie,



3,222 pallid sturgeon, 3,683 paddlefish, 12,899 advance-sized largemouth bass, 7,803 hybrid sunfish, 177,392 channel catfish, more than five million walleye fry, and more than 1.5 million walleye fingerlings were stocked in Missouri waters.

State Forest Nursery

The state forest nursery annually grows and distributes about 3 million seedlings of more than 60 species. The seedlings are planted on public and private land. The nursery filled more than 10,700 orders with more than 21,600 packages of seedlings.

Forest and Woodland Improvements

We improved forests and woodlands on 49,687 acres of state land. This included thinning young trees on 1,775 acres, eradicating invasive plants on 3,416 acres, post-sale cultural work on 1,421 acres, prescribed fires on 9,756 acres, 114 acres of tree planting, and harvest of 8,578 acres.

Land Management

MDC conducted habitat management on more than 191,000 acres of public land including: 39,000 acres of wetland, 23,000 acres of woodland/forest/savanna, 80,000 acres of cropland (67,000 acres through permittee farmers and 13,000 acres in food plots), 29,000 acres of grassland/prairie, 19,000 acres of old fields, and 1,000 acres of glade.

Golden Anniversary Wetlands

MDC is rehabilitating five of our oldest wetland management areas through the Golden Anniversary Wetlands Initiative. Work at Ted Shanks and Montrose conservation areas is complete. Fountain Grove Conservation Area (CA) pump design and installation is underway. Schell Osage CA work will begin in FY14. Duck Creek CA construction is about 50 percent complete. A second \$1 million North American Wetland Act grant was awarded to MDC to support the second phase at Duck Creek CA.

Duck Creek Conservation Area is one of five wetland areas that MDC is rehabilitating through the Golden Anniversary Wetlands Initiative.

New Office in the Central Region

MDC opened a new Central Regional Office and Conservation Research Center in Columbia. The facility houses 120 employees formerly housed at two facilities, laboratories, a 100-seat conference room, and a lobby where the public can pick up free brochures and obtain hunting and fishing permits. The building incorporates green building concepts.

Sound Financial Accountability

Internal Audits

MDC employs one internal auditor who performs regular, independent audits to ensure that public funds are expended in a responsible manner. In fiscal year 2012, there were no major findings noted with the business practices reviewed.



JUCK CREEK CA PHOTO BY NOPPADOL PAOTHONG

Information Technology

We completed analysis for the Land Tracking System, the Infrastructure Inventory System, and the Enterprise GIS Repository. These systems will significantly improve MDC's ability to manage public land and infrastructure.

Citizen Involvement/Education

Listened to Missourians

Part of delivering excellent service is listening and understanding what Missourians say about conservation programs and services. In FY12 there were 52 activities that involved 72,061 people. These included surveys, focus groups, open houses, comments and presentations to the Regulations Committee, and contacts with MDC's ombudsman.

Find MO Fish Mobile Phone Application

This free mobile application shows a map of Missouri with the locations of public boat ramps to the major lakes, rivers, and streams. The map also shows the location of underwater fish structures MDC has placed. With the geo-location feature, anglers can guide their boat to a fish attractor.

Discover Nature Schools

Discover Nature Schools helps teachers engage students in hands-on, outdoor learning. Thus far, 53 schools taught the primary unit, 403 schools taught the elementary unit, 272 schools taught the middle-school unit, and 110 schools taught the high school unit. Conservation grants supporting Discover Nature Schools totaled \$212,246.

Technical Assistance to Landowners

MDC served landowners through approximately 71,579 rural and urban contacts, including more than 7,000 on-site visits. Staff answered 5,088 wildlife nuisance or damage assistance requests, including 1,000 on-site visits.

Private Lake and Stream Management

We responded to 4,974 requests for watershed, floodplain, riparian corridor, stream or lake management information, and/or technical assistance. We made 660 on-site visits. On-site work included 119 fish-population surveys, 14 renovations, and 40 fish-kill investigations. Staff conducted 12 stream or lake management workshops for 298 people. We also coordinated or participated in 28 watershed-management projects.

75th Anniversary Celebration

MDC celebrated 75 years of Missouri's unique, citizenled conservation. The celebration included a half-hour TV program, special events, publications, and Missouri



The Discover Nature Schools program helps teachers engage students in hands-on, outdoor learning.

Conservationist magazine articles that will culminate in a book. As part of MDC's 75th Anniversary, we hosted a photo contest. More than 1,880 people submitted almost 13,000 photos in seven categories.

Peregrine Falcon Web Camera

MDC, Ameren Missouri, and the World Bird Sanctuary provided citizens with a view of peregrine falcons raising chicks in a nesting box at Ameren's Sioux Energy Center in Franklin County. The camera was live for viewing from 7 a.m. until 8 p.m. seven days a week on each partner's website. Viewing was available until the falcon's five young left the nest.

Engage Partners at All Levels

Wetland Restoration Assistance

Since 1992, MDC has assisted the U.S. Department of Agriculture Natural Resources Conservation Service in restoring critical wetlands. Over the past two years, Missouri has received about \$43 million to assist landowners in wetland restoration. Missouri has 1,000 easements covering 139,815 acres through the Wetland Reserve Program.

Stream Teams

Missouri has 3,796 active Stream Teams statewide. Volunteer activities included removing 459 tons of trash, planting 5,254 trees, and hosting 1,228 events.



With partial funding from the U.S. Forest Service State and Private Forestry, MDC worked with the City of Joplin to plant trees, distribute hundreds of trees to homeowners, and coordinate numerous offers of financial assistance, as well as more than 9,000 hours of volunteer time.

Community Tree Care

MDC's Tree Resource Improvement and Maintenance cost-share program provided \$271,306 to fund the 37 best applications. Successful applicants receive 60 or 75 percent of their total project in cost share within specified limits. The applicant provides the remaining balance. Applicants matched the MDC contribution by 46 percent providing \$233,973 in local match.

Joplin Tornado Assistance

MDC worked with the U.S. Army Corps of Engineers and the State Emergency Management Agency to evaluate all remaining trees in the areas primarily effected in Joplin and Duquesne. Two Tree Resource Improvement and Maintenance grants were provided to the City of Joplin. Four plans for three Joplin parks were completed. Financial assistance was provided to Forest ReLeaf of Missouri to expand their tree nursery to provide trees to Joplin and Duquesne in the coming years. With partial funding from the U.S. Forest Service State and Private Forestry, MDC worked with the City of Joplin to plant more than 2,500 trees, distribute hundreds of trees to homeowners, and coordinate numerous offers of financial assistance, as well as more than 9,000 hours of volunteer time.

Share the Harvest

Conservation agents coordinate and support the Share the Harvest program with the Conservation Federation of Missouri, local charitable organizations, and local meat processors. In 2011, approximately 6,191 hunters donated 317,882 pounds of venison to less-fortunate Missourians.

Stream Stewardship Trust Fund

The Stream Stewardship Trust Fund is available to restore, enhance, and/or protect streams and their surrounding habitats. The Missouri Conservation Heritage Foundation runs the program, and MDC applies for grants. Last year, seven projects costing \$763,896 were approved.

Volunteer Fire Departments

MDC, in cooperation with the U.S. Forest Service, granted \$371,101 to 185 volunteer fire departments. The grants fund protective clothing, equipment, and training. Equipment was also provided through two federal programs. Through the Federal Excess Property Program we obtained equipment valued at \$427,287. The new Fire Fighter Program obtained equipment valued at \$13,165,721. Since 1951, we have assigned more than \$70 million in equipment to volunteer fire departments.

Wildfire Suppression

In FY12, MDC cooperated with fire departments across the state to suppress 3,505 wildfires that consumed 35,141 acres. The main cause of wildfire is the use of fire to dispose of debris.

Fiscal Year 2012 Summary

County Assistance Payments—\$1,498,157 Paid county levee and drainage district taxes, forest cropland payments, in lieu of real estate taxes, and county aid road trust payments. Since 1980, paid more than \$15.9 million to Missouri counties in lieu of real estate taxes.

Capital Improvements—\$18,008,745 Constructed, renovated, and repaired fish hatcheries, river accesses, wetlands, shooting ranges, nature centers, and facilities statewide; and acquired land.

Fisheries—\$12,882,551 Managed sport fish populations, aquatic biodiversity, and aquatic habitats. Managed 1,012 areas for fishing, and assisted 5,734 landowners with stream and lake management. Stocked about 9.1 million fish in public waters.

Forestry—\$18,438,507 Distributed about 3 million seedlings to 10,700 landowners, provided forestry assistance on more than 52,088 acres of private land and to more than 150 municipalities, managed 438,700 acres of public forest, monitored insect and disease threats, and facilitated development of the state's forest industry.

Wildlife—\$19,099,360 Managed more than 525,000 acres of public land and implemented programs to maintain and restore natural communities and wildlife diversity statewide.

Outreach and Education—\$15,417,635 Nearly 800,000 visited nature centers and shooting ranges, more than 500,000 subscribed to the Missouri Conservationist, more than 120,000 subscribed to Xplor, and more than 5.5 million visited MDC's website. Also provided more than \$200,000 in grants to schools, conservation curriculums for schools, outdoor skills programs, and hunter education.

Private Land Services—\$7,307,532 Made 71,579 rural and urban landowner contacts, affected 237,290 acres through technical assistance to landowners, provided habitat management workshops to 41,000, assisted 5,088 landowners with nuisance wildlife, and assisted with the formation of 18 landowner cooperatives.

Protection—\$15,245,000 Provided wildlife law enforcement in every county as well as resource management, information, education, and public service. Conservation agents contacted 718,796 people. Coordinated the Share the Harvest program. Conservation agents, along with 1,136 volunteers, conducted 905 hunter education classes, certifying 21,975 students.

Resource Science—\$10,985,166 Monitored the status of Missouri's fish, forests, plants, and wildlife, recommended conservation actions, evaluated these actions and reported the results. Contacted tens of thousands of Missourians to determine their outdoor activities and opinions about conservation programs.

Regional Public Contact Offices—\$2,720,688 Provided regional offices to directly serve Missourians.

Administrative Services—\$24,722,804 Paid for hunting and fishing permit sale systems, fiscal services, purchasing, distribution center, and sign shop. Provided agency-wide postage and printing services, fleet management, vehicle and equipment maintenance, and other agency appropriations. Includes information management and technology that supported all computers, software, telephones, and other telecommunications systems.

Human Resources—\$2,499,008 Provided the services to recruit, employ, and train employees.

Design and Development—\$12,464,762 Provided engineering, architectural design, cultural resource review, surveying and construction, as well as maintenance of conservation areas and facilities.

Administration—\$1,620,110 Provided audits, legal counsel, strategic planning coordination, federal reimbursement administration, environmental policy development, public involvement, and river basin coordination.

By the Numbers

RECEIPTS

\$100,566,000
\$32,850,045
\$25,141,633
\$7,480,667
\$3,320,018
\$308,776
\$169,667,139

DISBURSEMENTS

County Assistance Payments	0.92%
Capital Improvements	11.06%
Fisheries	7.91%
Forestry	11.32%
Wildlife	11.72%
Outreach and Education	9.46%
Private Land Services	4.49%
Protection	9.36%
Resource Science	6.74%
Regional Public Contact Offices	1.67%
Administrative Services	15.18%
Human Resources	1.53%
Design and Development	7.65%
Administration	0.99%

MISSOURI STATE BUDGET

Health & Social Services	42.1%
Education	25.6%
Government Services	19.5%
Transportation	9.4%
Natural & Economic Resources	2.8%
Conservation	0.6%

MDC represents less than 1% of the total state budget Total State Budget \$24,952,863,105

Missouri State Constitutional Language

Section 40(a). Conservation commission, members, qualifications, terms, how appointedduties of commission-expenses of members. — The control, management, restoration, conservation and regulation of the bird, fish, game, forestry and all wildlife resources of the state, including hatcheries, sanctuaries, refuges, reservations and all other property owned, acquired or used for such purposes and the acquisition and establishment thereof, and the administration of all laws pertaining thereto, shall be vested in a conservation commission consisting of four members appointed by the governor, by and with the advice of and consent of the senate, not more than two of whom shall be of the same political party. The members shall have knowledge of and interest in wildlife conservation. The members shall hold office for terms of six years beginning on the first day of July of consecutive odd years. Two of the terms shall be concurrent; one shall begin two years before and one two years after the concurrent terms. If the governor fails to fill a vacancy within thirty days, the remaining members shall fill the vacancy for the unexpired term. The members shall receive no salary or other compensation for their services as members, but shall receive their necessary traveling and other expenses incurred while actually engaged in the discharge of their official duties.

Source: Const. of 1875, Art. XIV, Sec. 16 (as adopted November 3, 1936). (Amended August 8, 1972)

Section 40(b). Incumbent members.—The members of the present conservation commission shall serve out the terms for which they were appointed, with all their powers and duties.

Section 41. Acquisition of property-eminent domain. – The commission may acquire by purchase, gift, eminent domain, or otherwise, all property necessary, useful or convenient for its purposes, and shall exercise the right of eminent domain as provided by law for the highway commission. Source: Const. of 1875, Art. XIV, Sec. 16.

Section 42. Director of conservation and personnel of commission. – The commission shall appoint a director of conservation who, with its approval, shall appoint the assistants and other employees deemed necessary by the commission. The commission shall fix the qualifications and salaries of the director and all appointees and employees, and none of its members shall be an appointee or employee. Source: Const. of 1875, Art. XIV, Sec. 16.

Section 43(a). Sales tax, use for conservation purposes. – For the purpose of providing additional moneys to be expended and used by the conservation commission, department of conservation, for the control, management, restoration, conservation and regulation of the bird, fish, game, forestry and wildlife resources of the state, including the purchase or other acquisition of property for said purposes, and for the administration of the laws pertaining thereto, an additional sales tax of one-eighth of one percent is hereby levied and imposed upon all sellers for the privilege of selling tangible personal property or rendering taxable services at retail in this state upon the sales and services which now are or hereafter are listed and set forth in, and, except as to the amount of tax, subject to the provisions of and to be collected as provided in the "Sales Tax Law" and subject to the rules and regulations promulgated in connection therewith; and an additional use tax of one-eighth of one percent is levied and imposed for the privilege of storing, using or consuming within this state any article of tangible personal property as set forth and provided in the "Compensating Use Tax Law" and, except as to the amount of the tax, subject to the provisions of and to be collected as provided in the "Compensating Use Tax Law" and subject to the rules and regulations promulgated in connection therewith. (Adopted November 2, 1976)

Section 43(b). Use of revenue and funds of conservation commission.—The moneys arising from the additional sales and use taxes provided for in section 43(a) hereof and all fees, moneys or funds arising from the operation and transactions of the conservation commission, department of conservation, and from the application and the administration of the laws and regulations pertaining to the bird, fish, game, forestry and wildlife resources of the state and from the sale of property used for said purposes, shall be expended and used by the conservation commission, department of conservation, for the control, management, restoration, conservation and regulation of bird, fish, game, forestry and wildlife resources of the state, including the purchase or other acquisition of property for said purposes, and for the administration of the laws pertaining thereto, and for no other purpose. The moneys and funds of the conservation commission arising from the additional sales and use taxes provided for in § 43(a) hereof shall also be used by the conservation commission, department of conservation, to make payments to counties for the unimproved value of land for distribution to the appropriate political subdivisions as payment in lieu of real property taxes for privately owned land acquired by the commission after July 1, 1977, and for land classified as forest cropland in the forest cropland program administered by the department of conservation in such amounts as may be determined by the conservation commission, but in no event shall amount determined be less than the property tax being paid at the time of purchase of acquired lands.

Source: Const. of 1875, Art. XIV, Sec. 16. (Amended November 2, 1976) (Amended November 4, 1980)

Section 43(c). Effective date-self-enforceability. — The effective date of this amendment shall be July 1, 1977. All laws inconsistent with this amendment shall no longer remain in full force and effect after July 1, 1977. All of the provisions of sections 43(a)-(c) shall be self-enforcing except that the general assembly shall adjust brackets for the collection of the sales and use taxes. (Adopted November 2, 1976)

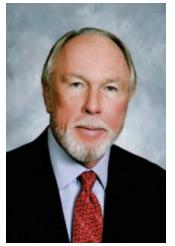
Section 44. Self-enforceability-enabling clause-repealing clause. – Sections 40–43, inclusive, of this article shall be self-enforcing, and laws not inconsistent therewith may be enacted in aid thereof. All existing laws inconsistent with this article shall no longer remain in force or effect. Source: Const. of 1875, Art. XIV, Sec. 16

Section 45. Rules and regulations-filing-review. — The rules and regulations of the commission not relating to its organization and internal management shall become effective not less than ten days after being filed with the secretary of state as provided in section 16 of this article, and such final rules and regulations affecting private rights as are judicial or quasi-judicial in nature shall be subject to the judicial review provided in section 22 of article V.

Section 46. Distribution of rules and regulations.—The commission shall supply to all persons on request, printed copies of its rules and regulations not relating to organization or internal management.

The Conservation Commission and Director

n 1936, the people of Missouri, through the initiative petition process, voted to amend the Missouri Constitution to establish the Conservation Commission. The four Commissioners, no more than two of whom may belong to the same political party, are appointed by the governor with the advice and consent of the senate. They serve with no compensation for six-year terms. The commission is responsible for management of the state's forest, fish, and wildlife resources. The commission is also responsible for hiring the director.



Mr. Don C. Bedell Sikeston **Term:** 7/30/2009 to 7/1/2015



Mr. James T. Blair, IV St. Louis **Term:** 7/13/2011 to 6/30/2017



Mr. Don R. Johnson Festus **Term:** 7/18/2007 to 6/30/2013



Mrs. Becky L. Plattner Grand Pass **Term:** 8/7/2007 to 6/30/2013

Director



Mr. Robert L. Ziehmer

Our Mission

To protect and manage the fish, forest, and wildlife resources of the state; to facilitate and provide opportunity for all citizens to use, enjoy, and learn about these resources.

Conservation at a Glance

- ▲ We Listen to Missourians
- ▲ What Missourians Say About Conservation
- ▲ The Economics of Conservation in Missouri
- ▲ Wildlife Recreation
- ▲ Hunting and Fishing
- ▲ Forestry and Wood Products

We Listen to Missourians

he Missouri Department of Conservation believes that all Missouri citizens are important and we want to listen and act to earn their trust. Our job is to listen, understand, and personally deliver programs and services in a manner that benefits all Missourians and the fish, forest, and wildlife resources in Missouri.



- The Conservation Commission meets regularly and anyone may contact the Conservation Commission with comments or request to appear at a Commission meeting.
- The director of the Conservation Department may be personally contacted at Department headquarters in Jefferson City, by telephone or email.
- The Department ombudsman works with citizens to resolve conflicts and answers a wide variety of questions by mail, telephone, and email.
- The Department conducts a wide variety of statistically accountable mail surveys, telephone surveys, and focus groups to determine the opinions and attitudes of Missourians about conservation and the Department of Conservation. The Department has conducted attitude, opinion, satisfaction, and participations surveys for more than 30 years.

- The Department has eight regional service centers with staff available to assist Missourians with their conservation requests and needs.
- The Department's monthly magazine, free to Missourians who request it, includes a letter-to-the-editor section and an "Ask the Ombudsman" column.
- The Department maintains an extensive website with conservation information, contact information, and online comment form.
- The Department conducts frequent public forums to obtain interactive feedback from all Missourians at locations throughout the state.
- Department regulations are formed and discussed in a public setting that invites citizen participation.
- The Department seeks public input on proposed regulations through a variety of venues including the Department's regulation comment page at mdc.mo.gov/node/19209.

What Missourians say about Conservation

The majority of Missourians feel the Department of Conservation is doing an excellent or good job of providing services to themselves (73 percent), their families (71 percent), the community (69 percent), and the state (71 percent). Most Missourians say they are either very familiar (22 percent) or somewhat familiar (60 percent) with the Missouri Department of Conservation.



- Most Missourians (91 percent) report they are interested in Missouri's fish, forests, and wildlife.
- Most Missourians (75 percent) agree that land should be acquired for fish, forest, and wildlife conservation.
- Most Missourians (91 percent) agree that "It is important for outdoor places to be protected even if you don't plan to visit the area."
- Most Missourians (79 percent) agree that the Department of Conservation should make an effort to restore animals that once lived or are currently very rare in the state.
- Most Missourians (80 percent) agree that the Department of Conservation should help private landowners who want to restore native communities of plants and animals.
- More than three-quarters (78 percent) agree that the Department "should assist communities that want to include trees and green spaces in housing, business, and shopping developments."

- Almost all Missourians (95 percent) approve of hunting for food.
- Two-thirds of Missourians (67 percent) approve of cutting down trees to make lumber, furniture, or other wood products.
- The majority of Missourians (66 percent) agree that trapping is okay as long as it is regulated.
- Time is mentioned as the biggest obstacle to the enjoyment of outdoor activities by Missourians.
- A majority of Missourians (78 percent) agree that the Department of Conservation is doing a good job of enforcing fish and wildlife laws.
- Most Missourians (85 percent) agree that the Missouri Department of Conservation "is a name I can trust."

Information from the Missouri Department of Conservation, 2009.

The Economics of Conservation in Missouri

The amount of state sales tax revenue generated from fish, forest, and wildlife recreation spending is about the same amount of sales tax revenue received by the Department of Conservation from the one-eighth of one percent Conservation Sales Tax— CONSERVATION PAYS ITS WAY IN MISSOURI.



- In Missouri, the total economic impact of fish and wildlife recreation and the forest products industry is \$11.4 billion dollars annually.
- Since 1980, the Department has paid nearly \$16 million dollars to Missouri counties in lieu of taxes. In fiscal year 2012, more than \$1.47 million was paid to Missouri counties for forest cropland payments, levee and drainage district payments, in-lieu-of-property-tax payments, and county aid road trust payments.
- The forestry and wood products industry in Missouri is more than \$5.7 billion dollar activity and supports 31,700 jobs.
- Missourians and non-residents spend more than \$3.3 billion dollars annually related to fish, forest, and wildlife recreation. These expenditures generate \$5.7 billion dollars annually in economic impacts in Missouri.
- The annual expenditures related to fish, forest, and wildlife recreation support 64,186 jobs in Missouri.
- Fish, forest, and wildlife expenditures generate more than \$439 million dollars annually in state and local tax revenue.

- In Missouri, 2.9 million residents and nonresidents, age 16 years and older, participated in fishing, hunting, or wildlife-associated recreation.
- Collectively, resident anglers spend 15.3 million days afield, resident hunters 9.2 million, and resident wildlife-watchers 13.4 million days in away-fromhome activities, in Missouri. Nonresident anglers add 1.3 million days and nonresident hunters 544,000 days.
- Nonresident expenditures for fishing and hunting in Missouri well exceed \$211 million each year. Each nonresident angler and hunter spends an average of \$617 dollars each year in Missouri.
- Deer hunters in Missouri, age 16 years and older, spend \$690 million each year.
- Deer hunting in Missouri generates \$1.1 billion dollars of business activity annually. This results in \$83 million in state and local tax revenue each year.
- Deer hunting expenditures annually support more than 11,824 jobs in Missouri.

Information from the Missouri Department of Conservation, the Missouri Forest Products Association and the 2006 National Survey of Fishing, Hunting and Wildlife-Associated Recreation.

Missouri Hunting and Fishing

Hunters	608,000
Anglers	1.1 million
Total Expenditures	\$2.4 billion
Total Jobs Supported	45,939
Earnings from Expenditures	\$1.2 billion

State and Local

Tax Revenue \$269 million

Total Business-

Generated Revenue \$4.2 billion



STATE TAX REVENUE INFORMATION

Hunters and anglers in Missouri generate \$269 million annually in state and local taxes.

TAKE A CLOSER LOOK

- More Missourians hunt or fish than the number who attend St. Louis Rams or Kansas City Chiefs games.
- One of every four Missouri residents hunts or fishes.
- Annual spending by hunters and anglers is more than the cash receipts for cattle production in Missouri.

JOBS

Hunters and anglers support 45,939 jobs each year.

The amount of sales tax revenue generated by fish, forest, and wildlife recreation is about the same amount of sales tax received by the Department of Conservation from the oneeighth of one percent sales tax—in other words, conservation pays its way in Missouri.

Information from the Missouri Department of Conservation and the U.S. Fish and Wildlife Service 2006 National Survey of Fishing, Hunting and Wildlife-Associated Recreation.

Missouri Forestry and Wood Products

Total Forested Acres 14 million **Privately Owned Acres** 83 percent **Publicly Owned Acres** 15 percent **Wood-Using Industry** Dollars \$5.7 billion

Wood-Using Industry Labor Income

Total Jobs Supported

31.700

\$1.2 billion



STATE TAX REVENUE INFORMATION

Forestry and the wood-using industries in Missouri generate \$57 million each year in state sales tax.

TAKE A CLOSER LOOK

- Each year, about six million tree seedlings are planted.
- More than one million acres of forests have been added to Missouri's landscape in the last 30 years.
- Forests in Missouri are increasing faster than they are being harvested.
- Most of the forests in Missouri are privately owned.

JOBS

Wood industry firms and activities support more than 31,700 jobs each year.

- Forests are important to Missourians who enjoy outdoor recreation such as camping, sightseeing, bird watching, canoeing, photographing nature, hunting, or fishing. Many Department of Conservation areas have campsites or are open for primitive camping.
- Forests in Missouri are essential for healthy streams, clean water, wildlife habitat, and environmental stability.

Information from the Missouri Department of Conservation and the Missouri Forest Products

Missouri Wildlife Recreation

Wildlife Watchers 2.2 million \$869 million **Total Expenditures** Total Jobs Supported 18,247

Earnings from

Expenditures \$493 million

State and Local

Tax Revenue 113 million

Total Business-

Generated Revenue \$1.5 billion



STATE TAX REVENUE INFORMATION

Wildlife watchers in Missouri generate \$113 million annually in state and local taxes.

TAKE A CLOSER LOOK

- In Missouri, adults involved in wildlife watching would fill Arrowhead Stadium in Kansas City more than 28 times.
- Missourians are outdoor oriented—each year they spend 13.4 million days in wildlife watching activities away from their home. Two million enjoy observing, feeding, and photographing wildlife near their homes.

JOBS

Wildlife watching activities in Missouri support 18,247 jobs each year.

The amount of sales tax revenue generated by fish, forest, and wildlife recreation is about the same amount of sales tax received by the Department of Conservation from the oneeighth of one percent sales tax—in other words, conservation pays its way in Missouri.

Information from the Missouri Department of Conservation and the U.S. Fish and Wildlife Service 2006 National Survey of Fishing, Hunting and Wildlife-Associated Recreation.

Our Pledge to Serve Missourians

he Missouri Department of Conservation's mission, vision, and goals communicate our neverending pledge to serve Missourians and to meet the requirements of the Missouri Constitution (Article IV, Section 40(a) through 46).

Mission

To protect and manage the fish, forest, and wildlife resources of the state; to facilitate and provide opportunity for all citizens to use, enjoy, and learn about these resources.

Vision

The Department shall be a forward looking agency, implementing solid core values ensuring integrity and trust, using adaptive learning and creative thinking, embracing technology and providing superior public service—to be the national leader in forest, fish, and wildlife management proactively advancing our mission through understanding natural resource and social landscapes.

Goals

- ▲ Ensure healthy and sustainable forest, fish, and wildlife resources throughout the state.
- ▲ Manage lands held in public trust and associated infrastructure to ensure continued benefit to citizens and to forest, fish, and wildlife resources.
- ▲ Ensure sound financial accountability and transparency in all areas of operation.
- ▲ Provide opportunities for active citizen involvement in services and conservation education in both rural and urban areas.
- ▲ Engage partners at all levels (individual, community, county, state, federal) to enhance natural resources and effective delivery of conservation services.

Priority/Focus Within All Operational Areas

- ▲ Increase communication and education within and outside the agency
- ▲ Boldly advance research and management
- ▲ Increase citizen involvement and partnerships
- ▲ Grow quality staff

Values/Behaviors of Employees

- ▲ Excellent public service is essential—we work to deliver more than is expected.
- ▲ All citizens are important—we treat citizens the way we would want to be treated.
- ▲ Missourians are partners to achieve conservation success—we communicate openly and look for ways to make it easier to partner.
- ▲ Fairness, objectivity, sound science, integrity, and accountability guide actions—we know conservation best, value each other's time, strive to work at the speed of business not the speed of government, and are transparent.
- ▲ Employees are the Department's most important asset—we all work to advance conservation by being results driven, working as a team, serving as ambassadors for conservation, and living out the conservation ethic through our actions.

Bringing the Goals to Life

Healthy Forests, Fish, and Wildlife

Elk Reintroduction

Wild elk returned to Missouri after 150 years. MDC, the Kentucky Department of Fish and Wildlife Resources, and the Virginia Department of Game and Inland Fisheries captured elk during December and January (2010-11 and 2011-12). MDC and the Missouri Department of Agriculture developed protocols including a quarantine period to ensure the health of livestock and wildlife once elk were released. After all health protocols were met in Kentucky, 34 elk were moved to Missouri in 2011 and 35 (plus a newborn calf) in 2012. The elk were kept in a holding facility on Peck Ranch Conservation Area (CA) for about a month to allow acclimation and to complete health protocols. In 2011, all elk were released on Peck Ranch. In 2012, some elk were released on Peck Ranch while others were moved to a release site on The Nature Conservancy property. The Rocky Mountain Elk Foundation and the Missouri Conservation Heritage Foundation have been major supporters of the elk restoration.

The elk spend most of their time near the wildlife food plots on Peck Ranch CA. This 23,000-acre area is within the 346-square-mile elk restoration zone that encompasses parts of Carter, Shannon and Reynolds counties. Currently, auto routes are open on parts of Peck Ranch CA to allow visitors to view elk. Procedures to measure recreational use of the elk zone are being developed.

An elk research project with the University of Missouri has the objectives to: 1) Determine elk survival and reproductive rates; 2) Estimate abundance; 3) Develop a population model to project population growth; 4) Evaluate movements and habitat use; and 5) Determine the potential effects of stress on the elk. Results of this study will guide future habitat and population management.

Hellbender Restoration

MDC and the Ozark Hellbender Working Group are striving to restore hellbenders. Both Ozark and eastern hellbenders were listed as state endangered in 2003, and on Nov. 7, 2011, the Ozark hellbender was added to the federal endangered species list. In FY12, information was gained about the frequency and distribution of the amphibian chytrid fungus, as well as hellbender stress hormone levels.

MDC's Shepherd of the Hills Hatchery and the Ron Goellner Center for Hellbender Conservation at the Saint Louis Zoo are devoted to hellbender propagation. In 2011, eggs were collected from nine nests in four different rivers-the most successful collection effort so far. Currently, the Saint Louis Zoo is raising more than 1,500 larvae and juvenile Ozark hellbenders, while Shepherd of the Hills Hatchery is raising more than 700 larval eastern hellbenders.

The most significant achievement to date happened in the fall of 2011 with the world's first captive breeding of the Ozark hellbender at the Saint Louis Zoo. About 150 Ozark hellbenders were hatched. Staff helped finish two outdoor "streams" built to simulate natural stream conditions for Ozark hellbender captive breeding at the Saint Louis Zoo. MDC made 20 concrete nest boxes to simulate nest cavities. The goal is to have seven to nine adult hellbenders inhabit each raceway.

All of the effort by MDC and Saint Louis Zoo, along with funding from other agencies and private citizens, has made it possible to successfully breed this animal in captivity. This partnership among government agencies and a non-government entity has been used as an example of a multiagency, multi-disciplinary approach to recovery of an endangered species.

Deer Management

MDC's deer management goal is to maintain a statewide deer population level that provides adequate opportunities for hunters and people who enjoy watching deer, but low enough to minimize crop/landscape damage and deer-vehicle accidents. Hunting regulations are our primary tools for managing Missouri's deer herd.

One of the goals of deer regulations over the last decade has been to decrease deer numbers in many parts of Missouri. In addition to liberalization of antlerless harvest, an antler-point restriction has been implemented in many counties in an effort to shift harvest pressure from bucks to does. As a result of increased antlerless harvest, we are now dealing with more areas of too few rather than too many deer in rural areas. Today issues of overabundant deer in rural areas are largely isolated situations where individual landowners are unwilling to harvest sufficient numbers of deer.

Alternatively, deer management in urban areas continues to be a challenge. Efforts to reduce urban deer conflicts continued with more than 40 municipalities or entities. The city of Springfield (Fellows Lake and Lake Springfield) and the Powder Valley Conservation Nature Center (Kirkwood) held their first archery hunts where 42 hunters harvested 27 deer. Kansas City authorized 99 hunts within the city limits and harvested 639 deer. Columbia, Osage Beach, and Fulton certified 385 hunters to hunt city owned properties and those hunters harvested more than 100 deer. The City of Town and Country used sharpshooters to remove 288 deer then donated 17,280 pounds of venison to Share the Harvest.

The total firearms season harvest for last fiscal year was 237,264 deer.

MOFEP

The Missouri Ozark Forest Ecosystem Project (MOFEP) is a landscape-scale, long-term experiment to study the impact of even-aged, unevenaged, and no-harvest management on flora and fauna in Missouri oak-hickory forests. MOFEP helps resource managers improve their management systems. MOFEP activities in FY12 include:

Scheduled Harvest: MOFEP conducted its second scheduled harvest in the last half of FY11 and first half of FY12. MDC timber sales covered 2,352 acres of MOFEP. These sales totaled about 7.4 million board feet and \$1,090,000.

Nutrient Cycling: Research shows that the depth to bedrock explains part of the variability in calcium and magnesium concentrations in soils on MOFEP sites. Research also shows that there is a connection between tree species and calcium concentration. Where there was less calcium, black, white, and scarlet oaks were more abundant. Where there was more calcium, other oaks (blackjack, chinkapin, and Shumard) and non-oak species (pines, maples, hickories, and dogwoods) were more abundant. So far, data indicates that nutrient concentrations are elevated after tree harvesting.

Forest Songbirds: The study of songbirds as part of MOFEP began in 1991. We are able to compare density and reproductive success from the 5 years before harvest (1991-1995) to the 14 years

after harvest (1997-2010). All bird species that live in mature forests showed marked declines in density on all sites, and they have not yet returned to pre-harvest levels. Densities of mature forest species either showed no difference or only small differences between even-aged and uneven-aged management. Both harvest practices provided habitat for several early successional species that were not present prior to harvest, although some early successional species responded most positively to even-aged management. The peak of abundance occurred 7 years after harvest with most shrub-dependent species disappearing by the 12th year after harvest. Nest survival did not change significantly after the harvest or with forest management type.

Canopy Mapping: Historical canopy mapping data indicates that different tree densities and arrangements will affect what species will be present and how the forest will look in the future. In MOFEP our intent is to improve the accuracy of these predictive models to assist forest managers in choosing the best management practices now to achieve their desired outcome for the forest in the future.

Amphibians, Reptiles, and Small Mammals: Data collection continued after the second MOFEP timber harvest in 2011. Overall, both the even-aged and uneven-aged management sites showed less of a decrease in small mammal counts compared to the no-harvest control sites. Comparing old and new trapping protocols is the main thrust of the 2008-2010 MOFEP amphibian and reptile data analysis. The old protocol (1992–2008) called for checking traps every two to three days; the new protocol (2008-present) calls for checking traps daily for 10 days at a time. The new protocol has increased the number of live captures. Staff are studying a method to adjust old protocol data to be statistically comparable to the new protocol data, as well as ways to use newer statistical methods to analyze the datasets.

Hardmast: This MOFEP study was designed to examine acorn production—a key factor in regeneration of oak-hickory forests and an important wildlife food source. Initial trends indicate that acorn (mast) production for all oak species is highly variable from year to year. Species specific trends were also variable. There was no clear pattern between changes in acorn production and harvest activity. Where the tree grows on the landscape (i.e. south versus north slope, ridge top versus mid-slope versus in the valley) is strongly related to acorn production. All species exhibited the greatest production on ridge tops before harvest. After harvest, only black oak had the highest production on ridge tops. Other species began showing the highest production on northeast slopes. Red and white oaks had equal numbers of years where production was extremely poor or failed, regardless of location or harvest activity.

Conserving all Wildlife

MDC initiated revision of the Missouri Comprehensive Wildlife Strategy. Presentations and discussions were held with MDC leadership about what we must do to develop a network of lands and waters for future fish and wildlife. MDC remains committed to the goal: Ensure healthy and sustainable forest, fish, and wildlife throughout the state. Our approach to meet that goal is to support conservation planning, using guidance from landscapelevel assessments and priority setting exercises (i.e. Comprehensive Wildlife Strategy, Aquatic GAP, Forest Action Plan, Fisheries Watershed Priorities) as well as species plans, area plans, and recovery plans to invest in conservation actions that sustain fish and wildlife populations. This explicit conservation planning process will provide a framework for conserving plants, animals, and their habitats.

Quail and Grassland Birds

Quail population trends were mixed across the state but, with the onset of dry conditions, some regions demonstrated local population growth. Early reports of sizeable broods were verified by roadside census and fall covey surveys. Surveys showed the highest number of quail in the western Ozark border and Ozark Plateau regions followed by the Mississippi Lowlands. The 2011–2012 quail population status report is available at mdc. mo.gov/node/3689.

MDC initiated a pilot study to monitor quail habitat use, movement, and population response related to various habitat management practices in southwest Missouri. The study is in progress and is planned to expand to other areas in the state in future years.

Wildlife Code Enforcement

MDC enforces laws in the Wildlife Code, as well as other state laws for the safe public use of MDCowned lands. Conservation agents contacted 200,714 hunters and anglers in FY12 to ensure compliance and provide regulation information. During these contacts, agents noted 27,288 resource violations, issued 3,631 written warnings, and made 7,256 arrests. This resulted in a 96-percent conviction rate.

The Special Investigation Unit is an integral part of MDC's efforts to ensure compliance of the Wildlife Code. The focus is on commercial wildlife violations, illegal internet activity dealing with wildlife, and other major wildlife violations.

Black Bear Research

Little is known about black bears in Missouri. MDC is encouraging range expansion of black bears while managing the species according to the available habitat and the limits of human tolerance. We want to increase our knowledge through research so that we can develop management strategies. In 2010, MDC, in cooperation with Mississippi State University and with funding from the Federal Aid in Wildlife Restoration Act, began the first Missouri black bear research project. From July 2010 to May 2012, 45 bears were captured and tagged. Of those, 28 were males and 17 were females. Bears that were large enough were fitted with a radio collar. In addition, we collected 87 black bear hair samples from 23 hair snares. Preliminary results indicate that bears are distributed in clusters with individuals sparsely distributed between clusters. The population estimate was 108 bears for the southwest portion of study area.

Gypsy Moth Trapping Survey

In August 2011 MDC completed the annual Gypsy moth trapping survey with four moths captured statewide. For the 2011 monitoring season we shifted our survey responsibilities in response to the Missouri Department of Agriculture's inability to survey due to budget constraints. Staff from Southwest, Central, and Northeast regions who had not been involved in GM surveys jumped in and completed the mission in their regions. Staff in St. Louis Region continued to survey as they do every year. At the end of FY12 we returned to our traditional survey areas in Ozark, Southeast, and St. Louis regions to start the 2012 survey season.

Conservation Genetics

The Statewide Conservation Genetics Program uses the principle that there is genetic diversity throughout Missouri's animal and plant species that determines their productivity and survival. By identifying this diversity, often through analysis of DNA, rare animals and plants can be protected, sport fishing can be improved, hatchery strains can be selected, and species can be restored. Species studies involve walleye, darters, crayfish, black bass, shortleaf pine, and hellbenders.

Fish Monitoring

Ozark Cavefish: We completed a report Ozark Cavefish Distribution Related to Mining and Water Quality in the Tri-State Mining District of Jasper and Newton Counties, Missouri, done in cooperation with USFWS and Missouri State University. This study found that groundwater contamination from mining had a strong influence on where groundwater dwelling species were found. Ozark cavefish were found in four new sites, and bristly cave crayfish in six new sites. However, there was a distinct absence of cavefish and other aquatic cave dwelling species inside mined areas where samples were marked by high concentrations of cadmium, lead, zinc, and sulfate.

Topeka Shiner: We sampled for Topeka shiners in the Moniteau Creek watershed (Cooper and Moniteau counties) to assess population status, describe fish communities and habitat characteristics, and inform conservation activities. We discovered Topeka shiners in 13 of the 27 sites that were monitored. We found Topeka shiners in one stream where they were not previously known to exist.

Neosho Madtom: Monitoring of the distribution of Neosho madtoms in Spring River (Jasper County) continued. Since 2010, the overall extent of the river Neosho madtoms occupied remained consistent but it was collected in fewer sites in 2012. We found that water depth and the diameter of gravel on the bottom of the stream effected the likelihood of encountering the fish. Findings also suggest that the drought during the previous two years has negatively impacted Neosho madtom populations.

Niangua Darter: We continued to track Niangua darter populations through sampling,

addition to focusing on several low-water crossing replacement projects. The replacement crossings were designed to improve aquatic organism passage and habitat quality. Niangua darters maintained a broad distribution in the Little Niangua River watershed, estimated to occur in 72 to 87 percent of sites sampled. Distribution in Tavern Creek was estimated to occur in 20 percent of the sites sampled and was limited to the mid- and upper-portions of the watershed. Surveys in Bear Creek, Brush Creek, and North Dry Sac River did not detect Niangua darters. Stream sampling showed an increase in Niangua darters around the majority of the 11 low-water road crossing improvement projects. Increased numbers of species suggests other darters also benefited from changes to habitat upstream of crossings.

Streambank Stabilization

From 2004 thru 2011, MDC evaluated the effectiveness of five techniques at stabilizing the banks of streams and rivers to reduce soil erosion and caving. We chose the techniques (log weirs, farm rock weirs, farm rock toe, bank sloping, and gravel rolls) because they offered the opportunity to reduce project costs and still protect banks. It is clear that none of the projects performed well consistently. While there were several successful projects, all five techniques suffered multiple failures. The information gained during this study may allow us to make modifications to some of the approaches tested that will allow them to perform on a more consistent basis.

Fish Hatchery Parasite Control

Maramec Spring Hatchery continues to look for ways to deal with parasitic copepod on rainbow trout. Medicated feed may be a new treatment opportunity. However, the drug feed (SliceTM) is only approved in Canada and Europe for this use. Staff are working with the U.S. Fish and Wildlife Service and the U.S. Food and Drug Administration (FDA) through their Aquatic Animal Drug Partnership Program to obtain approval for the use of Slice™ in the U.S. The first step was to conduct a medicated feed trial. There was an 89.7 percent reduction in the number of copepods per fish fed the ration with Slice[™]. We hope this study will help justify an FDA approval to use Slice™ to reduce parasitic copepods in rainbow trout nationwide.

Zebra Mussel Interception

In May, a citizen informed us about a zebra mussel infested houseboat that was brought to Table Rock Lake. Staff immediately investigated. The owner cooperated and cleaned, drained, and disinfected the boat. A waiting period of 12 days before launching was also imposed. Staff inspected the boat a week later and found no live zebra mussels.

Alligator Gar Restoration

MDC is working to restore alligator gar, a state species of conservation concern. The capture of a 37-inch-long alligator gar fueled enthusiasm for more sampling. Staff netted a 56-inch-long, 51-pound, 2-ounce alligator gar—one of the first stocked in 2007. In only five years, it grew 41 inches. In addition, two alligator gar near Cape Girardeau stocked in 2010 appear to have similar growth rates, though they are in totally different habitats with different prey abundance and types.

Walleye Stocking

Staff collected and transported 199 female walleye to Lost Valley Hatchery for spawning. More than 19.7 million eggs were collected from 157 females. The initial hatch rate was just more than 38 percent, which is slightly below the 10 year average of 40 percent. Lost Valley set production water with a total of 2,250,000 walleye fry. Lake of the Ozarks also received 1.8 million walleye fry. A total of 1.5 million eyed eggs were sent to Byron Hatchery in Oklahoma, and 600,000 eyed eggs were sent to Arkansas. Hatchery managers throughout the country cooperatively trade surplus fish in order to meet their state needs.

Most of Lost Valley's walleye reached an average of 1-2 inches long and were ready to be stocked in early May. Lost Valley stocked a total of 573,967 fingerlings as follows: Bilby Pond (2,778), Mozingo Lake (20,104), Longview Lake (18,630), Smithville Lake (225,773), and Stockton Lake (302,491). An additional 4,191 fingerlings were used as hosts for a mussel propagation project.

First Lake Sturgeon Spawned in a Lab

The U.S. Geological Survey (USGS) lab near Columbia needed lake sturgeon eggs and fry to study the effects of various environmental contaminants on egg and fry development and survival. Various amounts of these contaminants are found in Mis-

souri's big rivers and several have been known to affect growth, survival, and even the reproductive organs of fish. MDC staff began sampling for large lake sturgeon in order to help fill the USGS need. Fish from 35 to almost 90 pounds were scanned to see if any were ripe males or females. Several fish turned out to be some of the first lake sturgeon stocked by MDC in the mid-1980s. We were able to spawn some of these fish at the lab, a historic event, as this was the first time lake sturgeon spawned outside of the wild in Missouri. Most of the eggs were used for the USGS project. Some were sent to a MDC facility where they were used to examine the feeding habits of lake sturgeon fry. This project provided a great opportunity for both MDC and USGS staff to learn how to catch and spawn large adult lake sturgeon. The knowledge and experience gained through these efforts will be useful as we continue to recover Missouri's largest and longest-lived fish species.

Focusing on Priority Watersheds

Each region continued to gather information on their top three watersheds. This includes locating and inventorying aquatic organism passage barriers and gathering data to further describe the watersheds. Watershed prioritization will continue to help MDC determine how and where to focus our efforts. The process will be flexible and consider resource needs, as well as stakeholder interests. With this approach, the best management practices developed are more likely to be implemented and sustained by instilling ownership through the stakeholder engagement process.

Trout Sampling

The annual Lake Taneycomo trout survey was completed in August. Rainbow trout were captured at an overall rate of 302 fish per hour, well within the normal range. Size structure remains excellent and is among the highest on record.

Brown trout were collected at a rate of 23 fish per hour—the lowest rate observed since 1980. Higher than normal water temperatures and water levels observed over the past four years could be contributing to the decline in catch rates. In response, stocking rates were temporarily increased.

Staff completed a population sample of the Meramec Red Ribbon Trout Management Area. There was a large decrease in brown trout. However, rainbow trout numbers were similar to 2009. In addition, parasitic copepod infested rainbows were found throughout the 2.5 miles of stream sampled, and about 20 percent had copepods embedded in either their mouths or gills. No copepods were observed on brown trout.

Catfish

Sampling continues at both Lake of the Ozarks and Truman Reservoir to assess the size structure of blue catfish. Jug lines are being used from August to November. We selected this sampling method because anglers commonly use jug lines at both reservoirs to catch blue catfish during all seasons. Sampling sites were randomly selected from a list both anglers and biologists developed. We have collected 869 blue catfish from Lake of the Ozark (average 21 inches, 3 pounds) and 1,099 blue catfish (average 22 inches, 4 pounds) from Truman Reservoir during the first two of three years of this study. Baseline sampling will conclude next year. Catfish are Missouri's most popular sport fish with approximately 500,000 anglers pursuing catfish each year.

Greater Prairie-Chicken Recovery

In March 2008, the Department began a five-year prairie-chicken translocation project, as part of the overall species recovery program, to restore an extirpated population at Wah'Kon-Tah Prairie. Since 2008, 435 prairie-chickens have been relocated. Greater prairie-chickens and other grassland birds have declined in Missouri because of changes in open grassland habitats. Prairie-chickens prefer large tracts of unbroken grassland. Habitat management efforts on private and public land have restored large tracts of prairie and diverse grassland in west-central Missouri. Staff will continue to monitor tagged birds, with emphasis on learning more about nest site selection, brood habitat use, and the success of the population now established at Wah'Kon-Tah Prairie.

American Burying Beetles

In June 2012, the Saint Louis Zoo and U.S. Fish and Wildlife Service released 150 pairs of American burying beetles at the Wah'Kon-Tah Prairie. The U.S. Fish and Wildlife Service classified the release as a non-essential experimental release, which means the burying beetle's presence will not affect property owners in the area despite its status as a Federal endangered species. In 1989, the American burying beetle was the first insect species to be

designated a federally endangered species. Historically, this beetle was most likely found throughout the state. Monitoring for American burying beetle populations in Missouri has been ongoing since 1991, but none have been found.

Invasive Species

Development of 24 invasive species fact sheets continued to help identify and categorize Missouri's invasive plants. Rapid response teams were used to control invasive plants such as verigated water clover and Japanese chaff flower. Invasive plant workshops were offered to provide information on control and mapping.

Chronic Wasting Disease in Missouri

Chronic wasting disease (CWD) is a fatal neurodegenerative disease that affects deer, elk, moose, and other cervids. It was first discovered in Missouri in February of 2010 at a private hunting preserve in Linn County. It has since been discovered in a private hunting preserve and in the free-ranging deer population in northwest Macon County. The finding of CWD in Missouri has potentially significant long-term implications to the state's free-ranging cervid populations. As part of the MDC's ongoing efforts to monitor the prevalence and distribution of the disease, we will continue testing hunter-harvested deer in the CWD containment zone. Additionally, MDC is working with area landowners on a management plan to limit the prevalence and further spread of CWD. With the help of hunters, MDC has tested more than 35,000 free-ranging deer for CWD from all parts of the state since 2002.

Smallmouth Bass Study

MDC is working with the U.S. National Park Service to determine seasonal movement patterns and habitat use of smallmouth bass in the Current River. Tags were implanted in 30 smallmouth bass in January and February 2011 near the mouth of Big Spring. The fish have been tracked at various intervals through early January 2012 to determine the seasonal movement, survival, and habitat use of smallmouth bass. The largest total movement was about 75 miles. By January 2012, five tagged fish had returned to the Big Spring confluence.

White-Nose Syndrome Discovered

White-nose syndrome has spread from New York state since its discovery there in 2007, and has decimated hibernating bat populations in many parts of the northeastern U.S. This disease affects bats during hibernation. Mortality rates are as high as 99 percent at infected sites. The past three winters MDC biologists have increased their survey efforts. In FY12, MDC surveyed a total of 36 caves and mines statewide. In March 2012, three bats were found in Lincoln County with the fuzzy, white, fungal-growth on the muzzle that is the classic sign of white-nose syndrome. These were the first confirmed cases in Missouri and west of the Mississippi River. However, no mortality due to the disease has been documented in Missouri. There currently is no cure for white-nose syndrome. We hope that, by closely documenting the timing of spread and severity, in addition to contributing to various studies of the disease, that MDC can assist with developing control measures.

Stream Habitat Evaluated

The goal of the Resource Assessment Monitoring (RAM) Program is to assess and monitor long-term trends in the health of Missouri's warm-water, wadeable streams. According to the analyses derived from RAM sampling since 2000:

- 57 percent of fish communities are in good health, 42 percent are degraded to some degree, and 1 percent are highly degraded.
- 61 percent of macroinvertebrate communities were in good health, 20 percent degraded, and 19 percent highly degraded.

MDC uses the RAM data to make better decisions when working with landowners and partners to conserve Missouri's aquatic resources. RAM is a partnership with the Department of Natural Resources. RAM data are also shared with universities and other state and federal agencies.

Feral Hog Eradication Efforts

A five year feral hog plan was implemented to help eradicate feral hogs on and around MDC properties and to assist other agencies and private landowners. Each MDC region has a feral hog coordinator and a team to address feral hog control activities. Last fiscal year, 671 hogs were eradicated. MDC has also entered an agreement with USDA-Wildlife Services to provide a full-time position to address feral hog issues in Southwest Missouri. We continue to

work cooperatively with the Missouri Department of Agriculture to develop regulations concerning possession and transport of feral hogs-including Russian or Eurasian bred hogs.

A feral hog research project was completed in FY12. It was designed, in part, to determine movement patterns, habitat use, and efficiency of control methods for cost analysis. We found that trapping removed the most hogs and had the lowest total cost per hog. The study also showed that aerial gunning was highly efficient in terms of man-hours and was similar in cost to trapping. A statewide population estimate was not feasible with this project. However, the population growth rate data, combined with the cost and efficiency data, will still be a valuable tool in estimating how much money and staff time are needed to meet management objectives on specific areas.

Porous Sole Wader Ban

Initial reactions from anglers regarding the new porous sole shoe, boot, or wader ban were generally positive. The vast majority of anglers contacted were well-informed in advance regarding the ban, supportive of the ban and were adjusting well to the change. The ban will help limit the spread of the invasive alga known as didymo and other invasive species.

Ruffed Grouse Study Update

MDC started a study to determine if restocking ruffed grouse in east-central Missouri is feasible. Before investing resources in further restoration work, MDC wants to know if the area has enough suitable habitat to justify the effort. Last year, MDC partnered with the Missouri Resource Assessment Partnership and the USDA Forest Service to design a two-year study to answer this question. Over the last year, biologists have collected data on habitat conditions in Callaway, Warren, and Montgomery counties. The next step is to analyze the data to determine whether further grouse-restoration efforts in east-central Missouri are justified.

Between 1940 and 1980s, MDC stocked more than 4,000 ruffed grouse from other states in the central Ozarks, north-central, and east-central Missouri. Today, grouse persist in very low numbers in the river-hills region of Callaway, Montgomery and Warren counties. The Quail and Upland Wildlife Federation and landowners in the area have expressed interest in partnering with MDC to restore ruffed grouse in central Missouri.

Manage Lands in Public Trust

Community Fisheries Assistance

Through the Community Assistance Program and the closely related Corporate and Agency Partnership Program, MDC enters into agreements (usually 25-year) with cities, counties, state and federal agencies, businesses, foundations, schools, and colleges. Under these agreements, MDC provides fisheries management at existing lakes and ponds and cooperatively develops and maintains facilities for anglers and boaters at lake and stream areas. MDC has agreements with 117 partners for the cooperative management of 168 public lakes, 42 stream-access areas, four lake-access areas, and 10 aquatic education ponds. MDC and its partners constructed or improved fishing and motorboat access facilities at Lancaster City Lake, Canton Ferry Access (City of Canton), and Preslar Lake (City of Fenton). MDC renewed its agreement with the City of Poplar Bluff for the cooperative improvement and management of Sportsman's Park Access (Black River).

Land Acquisition

About 767 acres of land in four counties were purchased and approximately 59 acres in two counties were donated. Acquisitions included a new conservation area in Jefferson County purchased with donated funds; an addition to Wire Road Conservation Area that will provide reparian and stream habitat protection and additional public access to Crane Creek; and the donation of 54 acres as an addition to Rockwoods Range in St. Louis County.

Cold-Water Fish Hatcheries

In 2011, cold-water hatcheries stocked 1,451,984 trout. These fish were distributed in five trout parks, 12 stream special management areas, and Lake Taneycomo. There were 310,212 daily adult and 62,007 daily youth tags sold. Anglers purchased 88,699 trout fishing permits.

Warm-Water Fish Hatcheries

In 2011, 6.4 million fish were stocked in public waters. Highlights include:

- Lost Valley Hatchery produced 216,821 hybrid striped bass.
- Lost Valley Hatchery produced 5,346 muskie for stocking in Pomme de Terre, Hazel Creek Lake, Fellows Lake, and Busch Area Lake 35.
- Blind Pony Hatchery produced and stocked 3,222 pallid sturgeon and stocked 23,683 paddlefish in Table Rock Lake, Truman Lake, Lake of the Ozarks, and the Black River.
- Chesapeake Hatchery produced 12,899 advancesized largemouth bass.
- Hunnewell Hatchery produced 7,803 hybrid sunfish for use in kid's fishing clinics.
- Hatcheries produced 177,392 channel catfish for stocking statewide.
- Mature walleye were captured from Bull Shoals Lake and Lake of the Ozarks and transported to Lost Valley and Chesapeake hatcheries to produce fry and fingerling walleye. More than five million fry and more than 1.5 million fingerlings were stocked in Missouri lakes and one river.

State Forest Nursery

The state forest nursery annually grows and distributes about 3 million seedlings of more than 60 species. The seedlings include trees and shrubs suitable for reforestation and wildlife-habitat restoration. The seedlings are planted on both public and private land statewide. The nursery filled more than 10,700 orders involving more than 21,600 packages of seedling trees, with a customer satisfaction rate of more than 99 percent.

National Fish Habitat Initiative

The National Fish Habitat Partnership has included Table Rock Lake on their ten waters to watch list. The designation is due to on-going efforts to improve habitat through the National Fish Habitat Initiative and More Fish Campaign. There have been 1,460 brush structures, 104 rock piles, 49 stump fields, 11 rock/stump combos, and 26 rock fences installed. Evaluation of these projects continues using electrofishing, SCUBA diving, radio telemetry, and creel surveys.

In addition, a habitat improvement project funded by the Table Rock Lake National Fish Habitat Initiative was completed in the upper mile of Lake Taneycomo. Historically, anglers crowded around the Shepherd of the Hills Fish Hatchery outlets during the majority of the season. Boulders were used to provide additional fish habitat and places for anglers to fish. The structures were placed away from the navigational channel. A total of 71 habitat clusters were installed from hatchery Outlet One to the Shepherd of the Hills boat ramp. Signs were posted to warn boaters of the new structures.

Continuous Forest Inventory

In 2010, we embarked on a mission to better monitor MDC forestry lands. The Continuous Forest Inventory program is designed to collect and report on the condition of the forest in a statistically sound manner and report the findings annually. The demand for timely, consistent, and reliable information regarding the condition of MDC forest lands is in high demand. Data from the Continuous Forest Inventory will show how much growth occurs on MDC forest lands and then be compared to harvest levels to demonstrate long term sustainability. Continuous Forest Inventory will also track the status and trends in forest extent, cover, growth, mortality, habitat, and overall health. MDC's Continuous Forest Inventory method is parallel to the national Forest Inventory and Analysis program. Consequently, our data can be integrated into that program as well.

The Continuous Forest Inventory project is long range in nature. Our goal is to install 462 plots over five years. In FY12, we installed 93 plots bringing the total number of plots to 186.

Trout-Opening Day & Kids' Fishing Day

There were 6,431 anglers (all the trout parks combined) who participated in the March 1 trout season opener. Stocking occurs ahead of the opener, including an extra measure of lunker fish to add to the excitement.

For the 10th consecutive year, Kids' Fishing Day was held at the four trout parks. Combined attendance of those 15 or younger at the May 2012 events held at Bennett Spring, Maramec Spring, Montauk, and Roaring River was 3,828. Most were with parents or other family members.

Forest and Woodland Improvements

We conducted forest and woodland habitat improvements on 49,687 acres of state land. This included thinning young trees on 1,775 acres, eradicating invasive plants on 3,416 acres, post-sale cultural work on 1,421 acres, prescribed fires on 9,756 acres, 114 acres of tree planting, and harvest of 8,578 acres.

Forest Best Management Practices

Implemented and maintained soil and water conservation best management practices for all forest-management practices on conservation areas. MDC monitors and documents compliance on all MDC timber sales. In addition, approximately 10 percent of these sales are audited each vear. In FY12 we reviewed 68 sites on 7,460 acres for proper implementation and effectiveness.

Dock Added to Lake Jacomo

Lake Venita in Odessa had a partial dam failure resulting in the disabled accessible dock sitting on dry ground. In the meantime, \$5,000 was donated to the Missouri Conservation Heritage Foundation for the purpose of putting an accessible dock at Lake Jacomo's Liggett Point. The donor had planned to make periodic donations to fund the purchase and installation of a new dock. Instead, the dock was moved from Lake Venita to Lake Jacomo. Staff sank 15 stake beds constructed by Boy Scouts around the newly installed dock to provide fish habitat.

Wader Wash Stations

Wader wash stations were installed at each of our four trout parks and Shepherd of the Hills Hatchery to help stop the spread of didymo, an invasive alga. The stations require a 5 percent or greater salt solution in them to be effective. Salt tubes were installed in the basin to maintain the desired concentration of the solution.

An award of \$3,300 from the Fish Kill Grant Fund was used to help build four wader wash stations at access locations along some cold-water streams. Local business, Trout Unlimited, and Mark Twain National Forest were partners. Each had a part in the installation and maintenance of the stations.

Bennett Spring Hatchery Addition

A new 4,000 square foot early rearing production facility was completed at Bennett Spring Hatchery. The new facility has more egg, fry, and fingerling space that allows for an increase in production. Included with the new facility was the renovation of two existing large raceways. These raceways will give more production space for fingerlings. These improvements will support current and future trout demands.

Roaring River Hatchery Improvement

A new, comprehensive hatchery alarm system project was completed at Roaring River Hatchery. The system will help protect the hatchery as it operates with reduced staff. All 40 pools are continually monitored for dissolved oxygen and water levels. The data from probes installed in each pool is transmitted to the office computer and control system. The auxiliary generator and pump back recirculation system are also monitored. Alarms that are not acknowledged within a few minutes are sent to a cell phone to alert the staff on call. Besides alerting staff to dangerous low oxygen levels, the system also allows for more efficient oxygen injection, eliminating the overuse of oxygen.

Hunnewell Hatchery Improvements

The paddlewheel aeration project was completed at Hunnewell Hatchery. Paddlewheels were placed in eight ponds. These aerators maintain the water quality standards demanded from the heavily stocked hatchery ponds. In the past, dissolved oxygen concentrations remain low during the peak of production causing undue stress to fish. Disease and mortality would often follow periods of stress. The aerators will be programmable, creating a simple management approach for hatchery staff. Most low oxygen problems occur after normal working hours. This addition will greatly reduce stress for both fish and staff.

Forest Legacy Land Purchase

MDC purchased a 429 acre tract in the LaBarque Creek watershed in Jefferson County through U.S. Forest Service Forest Legacy funding and the Mysun Charitable Foundation. This marks only the second time MDC has been able to secure Forest Legacy funding. This property was named the Myron and Sonya Glassberg Family Conservation Area.

Construction

MDC continued to connect citizens with nature through the these major construction projects: Black Hawk Access development, Hamburg Ferry Access pavement replacement, Tipton Ford Access low water slab, new Sullivan workstation at Meramec CA, Lancaster City Lake CAP renewal, Blackwell Lake improvements at Indian Trail CA, Salem Maintenance Center energy efficiency improvements, new storage building at

Blind Pony CA, new Central Regional Office and Conservation Research Center, Production Pond renovation at Blind Pony Fish Hatchery, paddle wheel aerators at Lost Valley Fish Hatchery, paddle wheel aerators at Hunnewell Fish Hatchery. new monitoring system at Roaring River Fish Hatchery, water control structure replacement at Ted Shanks CA, roof replacement at Central Office, Burr Oak Woods Nature Center exhibits renovation, roof replacement at Runge Nature Center, bridge replacement at Young CA, hatchery building replacement at Bennett Spring Fish Hatchery, levee renovation at Fountain Grove CA.

Land Management

We have maintained a high level of active management on MDC lands-especially for quail and grassland birds. During FY12, staff conducted habitat management on more than 191,000 acres of public land to include; 39,000 acres of wetland, 23,000 acres of woodland/forest/savanna, 80,000 acres of cropland (67,000 acres through permittee farmers and 13,000 acres in food plots), 29,000 acres of grassland/prairie, 19,000 acres of old fields, and 1,000 acres of glade.

Golden Anniversary Wetlands

MDC continues to rehabilitate five of our oldest wetland management areas through the Golden Anniversary Wetlands Initiative. The status of the initiative on each area is:

- Ted Shanks Conservation Area: Restoration is complete with future development plans underway for sections owned by the U.S. Army Corps of Engineers. Planning and funding will be provided through the Environmental Management Program.
- Montrose Conservation Area: Restoration is complete.
- Fountain Grove Conservation Area: Pump design and installation will complete efforts.
- Schell Osage Conservation Area: The first planning meeting was held. The renovation will begin in FY14.
- Duck Creek Conservation Area: Renovation is in full swing with about 50 percent of the construction complete. A second \$1 million North American Wetland Act grant was awarded to MDC to support the second phase of the project at Duck Creek.

Natural Communities

Three new natural areas were designated in FY12, adding 1,691 acres into the Natural Areas (NA) system. Fern Nook NA (398 acres) at Little Black Conservation Area (CA), Great Spirit Cave NA at Great Spirit Cave CA (13 acres), and Western Star Flatwoods NA on the Mark Twain National Forest (1,280 acres). There were also two natural areas removed from the system. Both de-listings were on the Mark Twain National Forest and included: Hayden Bald NA (40 acres) and Overcup Oak Sink NA (5 acres). Natural areas represent the best examples of natural communities and/or natural features in the state. These areas are routinely evaluated to ensure the highest quality is maintained within the program.

Updates at Burr Oak Woods

Burr Oak Woods Conservation Nature Center was updated as part of an ongoing plan to replace aged and outdated exhibits. New features include:

- Treetop experience for the children's area has wildlife interactives, an engaging mural painting, and an elevated walkway to a slide.
- Kiosk highlighting trail and site features.
- Aquarium area mural and habitat diorama enhances a big river message.
- Snake exhibit reveals myths, helps with identification, and encourages conservation.

Shooting Range Renovations

Renovations were approved for unstaffed ranges at William R. Logan and Apple Creek conservation areas. In addition, the design phase of a major renovation to the August A. Busch Memorial Conservation Area Shooting Range and Outdoor Education Center was approved.

New Office in the Central Region

In March 2012 MDC opened its new Central Regional Office and Conservation Research Center in Columbia. The facility houses 120 employees formerly housed at two facilities. The new building includes office space, laboratory facilities, a 100 seat conference room, and an inviting lobby where the public can pick up free conservation literature, obtain hunting and fishing permits, and buy nature books. The grounds include a patio for community education and conservation activities and a one-third-mile ADA-accessible paved trail.

The building incorporates green building concepts and products as much as possible, such as geothermal heating and cooling, structural insulated panels, parallel strand lumber, energy efficient lighting, and recycled-content materials, such as steel, acoustical ceiling panels, carpet, and a metal roof. The outdoor landscaping also incorporates low-impact development such as ground sculpting and rain gardens to minimize storm water runoff.

Sound Financial Accountability

Internal Audits

MDC employs one full-time internal auditor who performs regular, independent audits to ensure that public funds are expended in a responsible manner. During the year ending June 30, 2012, there were no major findings noted with the business practices reviewed.

Internships Encourage Diversity

MDC has a long-standing commitment to understanding the needs of Missouri citizens and accepts the challenge of staying in tune with our diverse stakeholders. One way to remain focused is through various diversity programs.

MDC began its ninth year of an internship program that creates experiences for students in the area of conservation, while addressing recruitment needs of MDC. Objectives are threefold: expose students to a variety of professional tasks and MDC's culture, mentor promising students in disciplines in which job candidates are scarce, and attract students with diverse cultural backgrounds to contribute to MDC's workforce and mission accomplishment. Internships are provided at both the undergraduate and graduate levels.

In FY12, 13 students worked in a variety of internship positions, which were diverse in both location and job responsibilities. The students represented six colleges and universities.

State Auditor Report

The State Auditor's Office has released MDC's audit to the public. The audit report covers two fiscal years ending June 30, 2010, and the overall performance rating was "good." In total, the state has audited MDC seven times in the last three years.

Disaster Relief/Response

MDC's promise to serve the public extends to our activities instrumental to the safety of our stakeholders, and our responses to catastrophes within and outside of Missouri. We continued to assist with two Missouri flood disaster relief/response situations and three tornado disaster relief/ response situations.

At the request of Missouri's State Emergency Management Agency (SEMA), MDC employees provided a variety of services to affected communities. They used heavy equipment, ATVs, and boats and vehicles to maintain levees, transport sandbags, and assist with water rescue. Staff provided security details and traffic control when needed. MDC also assisted with tree evaluations and provided long-term assistance to help Joplin reestablish the urban forest.

Improve Business Processes

MDC advanced robust financial forecasting and expanded financial reporting at Commission meetings to ensure financial accountability and transparency. Conservation revenues and expenditures are included in the Missouri Accountability Portal-a website where citizens can see how Missouri state government is spending their money.

Information Technology

The Information Technology unit completed analysis for the Land Tracking System, the Infrastructure Inventory System, and the Enterprise GIS Repository. This allows us to begin implementing these software solutions during FY13. These systems will significantly improve MDC's ability to manage our land and infrastructure, as well as improve how we manage data by creating a centralized GIS repository.

Citizen Involvement/Education

Listened to Missourians

MDC believes that all Missouri citizens deserve respect and that part of delivering excellent public service is to listen and understand what Missourians say about conservation programs and services. We conduct a variety of scientifically sound, unbiased, and representative efforts each year to understand public opinions, expectations, and recreation participation. This information guides decisions about regulations and fish, forest, and wildlife management.

In FY12 there were 52 activities that involved 72,061 people. These included surveys, focus groups, open houses, comments and presentations to the Regulations Committee, and contacts with MDC's ombudsman. Examples of efforts included a survey of firearm deer hunters, a landowner and deer survey, a survey of Missourian and city officials attitudes about community forestry, a survey of spring turkey hunters, three CWD open house forums, a crayfish regulation stakeholder workshop, and visitor surveys at Springfield, Burr Oak Woods and Cape Girardeau conservation nature centers. In addition, Missouri Conservationist magazine staff received a wide variety of questions and comments throughout the year.

Social Media

Social media plays an increasing role in sharing MDC information with Missourians. MDC's Facebook page has more than 35,000 "likes" and reaches almost 20,000 people per week who share our information with more than 5.5 million friends. Our Twitter feed has more than 2,500 followers who then pass MDC tweets along to thousands more. MDC's YouTube channels contain more than 1,000 videos and average about 115,000 views per month with more than 6 million total views. MDC online photos through Flickr offer about 550 images with more than 1,000 reader photos, which have had more than 40,000 views. To follow MDC on Facebook, Twitter, YouTube, or Flickr, or to receive RSS feeds, visit mdc.mo.gov and click on the icons at the bottom of the page.

Discover Nature Schools

Discover Nature Schools helps teachers engage students in hands-on, outdoor, place-based learning. As of this year, Discover Nature Schools units are available for kindergarten through high school. Thus far, 53 schools taught the primary unit, 403 schools adopted the elementary habitats unit, 272 schools taught the middle-school aquatic unit, and 110 schools adopted the high school ecology unit. An additional 110 schools engaged students in learning about Missouri's fish, forest, wildlife or natural habitats through our Conservation K-3 Field Trip Grant. A pre-kindergarten unit is in development. Discover Nature Schools units are also used by home-schools statewide.

Along with student books and teacher guides for each unit, we provide free training from MDC education consultants and grants for exploration equipment, outdoor classroom materials, and field experiences. Conservation grants supporting Discover Nature Schools totaled \$212,246.

Hunting and Fishing Opportunities

During the past fiscal year, we issued 4,279 hunting-method exemptions to help disabled hunters enjoy Missouri's outdoors. We also issued 421 group-fishing permits to help Missourians who otherwise might not be able to participate and learn about outdoor fishing activities.

Angler Recognition

MDC presented a Master Angler certificate to 336 anglers. MDC also issued new state records to anglers for bowfin, brook trout, goldeve, river carpsucker, and spotted gar.

Free Trees Promote Forest Awareness

In conjunction with the Missouri Department of Transportation, we provided free trees to nonprofit groups. Scout troops, Stream Teams, school groups, conservation groups, and communities used them for projects in both urban and rural areas. The program increases both an awareness of Missouri's forests and an understanding of the benefits of trees. For Arbor Day 2012, we distributed seedlings to more than 100,000 fourth-grade students statewide. Schools in Kansas City, Northwest, Northeast, and Ozark regions received river birch. Schools in the Central, St. Louis, Southeast, and Southwest regions received northern red oak.

Agent Outreach Efforts

Conservation agents represented MDC at 5,436 meetings with civic groups, schools, church groups, and other organizations. Agents completed 5,011 radio and television programs, published 2,810 newspaper articles, and conducted 1,923 exhibits. As part of their community relations efforts, agents contacted more than 518,082 citizens and answered 137,648 phone calls.

Outstanding Forest Stewards

MDC and the Missouri Community Forestry Council jointly sponsored the Missouri Arbor Award of Excellence. This program recognizes those throughout the state that act as good stewards of tree resources. Award categories include municipalities/governments, organizations, individuals, and businesses. In FY12 awards went to Bill and Kelcie Spradley, Springfield Public Works/Springfield Greene County Parks, William Jewell College, and the City of Clayton in partnership with the School District of Clayton and the Clayton Family Center. In addition, Suzy Latare, City of Holts Summit in partnership with the Community Betterment Association, and City of Blue Springs in partnership with Boy Scout Troops 58, 332, and 546 were recognized with a citation of merit.

Technical Assistance to Landowners

MDC provided timely and responsive service to landowners through approximately 71,579 rural and urban contacts, including more than 7,000 on-site visits. Technical assistance was offered to landowners who wanted help with habitat management plans. Staff also answered 5,088 requests for wildlife nuisance or damage assistance, including 1,000 on-site visits. In addition, conservation agents provide technical assistance. During FY12, agents made 18,502 resource management contacts, which includes assisting landowners with wildlife nuisance and damage problems.

Wildlife Damage Management

The Wildlife Damage Management program provides technical advice to landowners experiencing wildlife conflicts. This is done through phone calls, mailings, workshops, and on-site visits. This program serves more than 4,600 landowners annually. In addition, wildlife damage biologists gave 89 programs on trapping and damage prevention to 7,790 participants. The program also represented MDC on committees such as the Nuisance Urban Goose Implementation Team, the Feral Hog Task Force, and the Mountain Lion Response Team. The program maintains partnerships with other agencies and groups including the Missouri Trappers Association, USDA/Animal and Plant Health Inspection Service—Wildlife Services, Missouri Department of Agriculture, Missouri Department of Natural Resources, and the USDA Forest Service.

Call Before You Cut

Call Before You Cut is a voluntary forest landowner information program. Landowners are urged to call a toll-free phone number or visit a website for information about the benefits of a professional forester. In FY12, 759 landowners covering 92,150 acres requested information. Since 2009, 945 landowners who control more than 111,898 acres of forest have been sent information.

Habitat-Management Workshops

MDC held or participated in more than 727 habitat management workshops for more than 41,000 private landowners. The workshops focused on management techniques to benefit early successional wildlife such as quail, rabbits, and grassland birds.

Stream Crossing Workshop

MDC held a low water crossing workshop with 33 attendees from Taney, Christian, and Stone counties. The workshop focused on efficient and aquatic friendly stream crossing maintenance. Follow-up evaluations were overwhelmingly positive.

Private Lake and Stream Management

We responded to 4,974 requests for watershed, floodplain, riparian corridor, stream, or lake management information and/or technical assistance. We made 660 on-site visits and wrote 100 recommendation letters or management plans. On-site work included 119 fish-population surveys, 14 renovations, and 40 fish-kill investigations. Staff conducted 12 stream or lake management workshops for 298 people, and coordinated or participated in 28 active watershed-management projects.

Urban Fishing

During 2011, more than 51 urban lakes were managed for fishing. A total of 127,520 keeper-sized fish were stocked in these lakes; this included 75,631 channel catfish and 51,889 rainbow trout.

Road Crossings Improved

The Alternate Route 63 highway project included a new bridge across Bear Creek in Kirksville. MDC worked with the Missouri Department of Transportation in the planning. The new bridge incorporated keyed-in grade control structures both up and downstream of the bridge and a plunge pool/grade control immediately downstream of the bridge. The former structure was an aquatic organism passage barrier due to its undersized culverts and a streambed elevation difference of several feet. The new concrete span bridge provides up and downstream connectivity.

MDC completed the Prosperity Road low water crossing replacement in Dallas County. This was the ninth replacement project in the Little Niangua watershed. Funding has already been approved and design begun on the Griffith Road low water crossing of the Little Niangua River. The completion of this project will address the last identified aquatic organism passage barrier in the watershed.

Purple Loosestrife Control

The annual Purple Loosestrife Control program helps to keep the impact of invasive wetland plants to a minimum. During 2011, MDC worked with landowners in the northeast, central, and northwest zones to spray 69 sites ranging in size from a few plants at some locations to about 3,500 acres. All efforts were on private land. In response to U.S. Environmental Protection Agency and Missouri Department of Natural Resources requirements, the program developed a new departmentwide tracking spreadsheet. Staff also designed and established test plots as part of a multi-year project to evaluate several herbicides for residual preemergent effects.

Logger of the Year

MDC recognized a crew from the East Perry Lumber Company as Missouri Logger of the Year for practicing sustainable forest management. East Perry's crew includes Adam Hoehn, Tim Schmidt, and Ron Stelling. Each year foresters nominate loggers that excel in their profession. The Logger of the Year award is chosen by a panel representing MDC, the Missouri Consulting Foresters Association, and Missouri Forest Products Association (MFPA). The logger must complete the MFPA and MDC sponsored Professional Timber Harvester's Training Program. Roy Chaney and Sons were selected as Ozark Region Logger of the Year.

The 2011 Missouri loggers of the year, Gene Fiske, Jr., Jay Duncan, and Gene Fiske, Sr., of J&G Logging in Summersville were nominated for the Appalachian Region Logger of the Year award. Nominees are selected from the top loggers from 13 states.

Missouri Forestkeepers Network

The Missouri Forestkeepers Network is a volunteer group interested in forests and forest monitoring. More than 2,600 individuals, groups, and organizations were enrolled in the program in FY12. Members volunteered 20,335 hours valued at \$441,075 using the Independent Sector's value for volunteer time. In FY12, Missouri Forestkeepers Network focused on providing members with technical information, presenting annual awards for outstanding volunteer time, and promoting landowner events. The Tree Farm Conference, an invasive species workshop, and other landowner workshops were advertised to members. The Heritage Woods program was promoted to people who own smaller parcels of land and workshops were offered to improve the expertise of members in caring for their woods. Heritage Woods is a vital tool to recognize good management on private land. In FY12, 52 Missourians joined the program for a total of 93 members.

Fuels for Schools Grant

In FY12, woody biomass boiler systems were completed at six schools as part of the Missouri Fuels for Schools program. MDC awarded \$6 million in grants to the schools from 2010 to 2011 funded under the American Reinvestment and Recovery Act and administered by the U.S. Forest Service. The southern Missouri schools who received the grant are Gainesville R-V School District, Mountain View-Birch Tree Liberty High School, Eminence R-I Elementary School, Southern Reynolds County R-II School District, Steelville R-III School District, and Perry County School District 32. The new boiler systems will use woody biomass from local and private forests and wood waste from local sawmills. The program also supports the health of area forests by making it more economical to thin overcrowded forest stands and remove diseased and insect-infested trees.

Logger/Landowner Grant

In FY10 the Natural Resource Conservation Service awarded MDC a \$386,000 National Conservation Innovation Grant to establish a trial cost-share program. This program is designed to be a partnership between loggers and landowners. Loggers of approved projects are paid \$10 to \$20 per acre to implement best management practices and landowners receive \$5 per acre. The concept behind

splitting the incentive is that the logger has the responsibility for establishing erosion-prevention measures on timber sales and the equipment to implement the practice and the landowner is responsible for maintenance.

To participate, loggers need to sign up for the cost-share program at their local MDC office. They must be a professionally trained logger or attend an MDC Best Management Practices class. In FY12 the targeted area was expanded from 15 counties to 57, and 24 projects were approved covering 2,089 acres. These 24 projects were completed providing \$41,064 in cost share to loggers and \$10,830 in cost share to landowners.

St. Louis Stewardship Grants

MDC funded six conservation projects through the St. Louis Community Stewardship grant program. \$50,000 was awarded to partner organizations in St. Louis City, St. Louis County, and St. Charles County and included: Confluence Master Naturalists, Forest Park Forever, City of Chesterfield, St. Louis Audubon Society, St. Louis County Parks, and Parkway School District.

Communications Take Top Honors

Missouri Conservationist and Xplor magazines both scored wins in a national competition sponsored by the Association for Conservation Information (ACI). Two articles (The Royal Kingbirds of Kauffman Stadium by Larry Rizzo, July 2011 Conservationist, and Animal Assassins by Matt Seek, October-November 2011 Xplor) tied for first place for Best General Interest Article. *Xplor* took first place in the Best Magazine category. MDC also took first place for its website and for the 2011 Natural Events Calendar. In all, Missouri won 19 awards-more than any other state—in categories ranging from Best Book (Cooking Wild in Missouri, first place) to Big Ideas-Small Budgets (Invasive Species Alert: ZOMBIES! on MDC's Fresh Afield blog, first prize.)

Discover Nature Campaign

In FY12, the Discover Nature campaign began to inform Missourian's through various partners and media outlets about the great outdoor opportunities MDC offers. These opportunities include nature centers, conservation areas, shooting ranges, classroom materials and grants, and more.

75th Anniversary Celebration

MDC is celebrating 75 years of Missouri's unique, citizen-led conservation. The celebration includes a half-hour TV program, special events, publications, and Missouri Conservationist magazine articles that will culminate in a book. As part of MDC's 75th Anniversary, we hosted a photo contest. More than 1,880 people submitted almost 13,000 photos in seven categories.

Peregrine Falcon Web Camera

MDC, Ameren Missouri, and the World Bird Sanctuary worked together to provide citizens with a bird's-eye view of peregrine falcons raising chicks in a nesting box at Ameren's Sioux Energy Center in Franklin County. The camera was live for viewing from 7 a.m. until 8 p.m. seven days a week on each partner's website. Viewing was available until the falcon's five young left the nest. The young birds were fitted with leg bands that will help them be identified and help researchers track their migration routes, dispersion patterns, nesting location preferences, etc.

New Freshwater Mussel Field Guide

MDC completed a new field guide to Missouri's freshwater mussels in cooperation with the U.S. Fish and Wildlife Service and Missouri State University. This comprehensive guide provides excellent photos and descriptions of native as well as invasive freshwater mussels to aid in the accurate identification of mussels in the field. This tool will greatly aid in the monitoring and recovery efforts of mussel populations and tracking the presence and impact of invasive bivalves.

Find MO Fish Mobile Phone Application

This free application shows a map of Missouri with the locations of public boat ramps to the major lakes, rivers, and streams of Missouri. The map also shows the location of underwater fish structures MDC has established. These structures act as fish habitat. With the geo-location feature, you can guide your boat right up to a fish attractor and start fishing. It runs on iPhones, Android, Blackberry, and Windows mobile.

Engage Partners at all Levels

Wetland Restoration Assistance

Since 1992, MDC has assisted the U.S. Department of Agriculture Natural Resources Conservation Service in restoring critical wetland habitat. Over the past two years, Missouri has received about \$43 million to assist landowners in wetland restoration. To date, Missouri has recorded 1,000 easements covering 139,815 acres through the Wetland Reserve Program. The majority of these easements are permanent. These restored wetlands not only provide critical habitat, but also store water during flood events—alleviating pressure downstream on levies, communities, and agricultural crops.

Monitoring Forest Health

The Forest Health program is an effort among MDC and other state and federal agencies to monitor and evaluate forest health and provide information to Missourians. Primary threats to forest health in Missouri are oak decline, oak wilt, sporadic insect outbreaks, weather disturbances, and introductions of invasive species.

Citizens are encouraged to report suspected infestations through a toll-free phone number, a website, or an email. Forest Health staff investigate these reports. During the past year, we have increased awareness of the threat of pests hitchhiking in firewood and developed multi-agency policies to address this threat. In addition, staff have helped develop a response plan for thousand cankers disease of black walnut. Field surveys to detect introductions of thousand canker disease and the gypsy moth are conducted in cooperation with other state and federal agencies. We provided mapping and data management to all partners in the gypsy moth survey.

Forest Health staff also provides diagnostic services on all forms of forest insect and disease agents. Forest and pest management recommendations are developed based on monitoring and diagnostic activities and provided to private landowners, MDC, forest managers, arborists, and the green industry. Forest health information is also provided through workshops, diagnostic reports, magazines, the Internet, media releases, and newsletters. In FY12 staff responded to 2,473 requests for assistance with forest health issues.

Emerald Ash Borer

Emerald ash borer trapping was completed in late summer 2011 with no new signs of the insect outside the initial discovery in Wayne County. Trapping efforts were underway for summer 2012. A U.S. Department of Agriculture Forest Service State and Private Forestry program grant has allowed MDC to implement focused outreach associated with emerald ash borer. These funds were used to secure air time to share information about the dangers associated with moving firewood, to purchase a tradeshow exhibit, and to conduct outreach to key groups such as the Missouri Public Utility Alliance, the Missouri Municipal League, Missouri Community Forestry Council, and others. Emerald ash borer outreach efforts have been coordinated in partnership with the Missouri Department of Agriculture (MDA). An emerald ash borer outreach coordinator employed by MDA and jointly supervised by MDC and MDA has taken the lead coordinating messages and implementing all work.

Thousand Canker Disease of Black Walnut

Implementation of a grant from the U.S. Forest Service State and Private Forestry funding monitoring and outreach for thousand canker disease of black walnut began in FY12. This grant was partially matched by providing more than \$38,000 in funds to four communities to conduct tree inventories through the Tree Resource Improvement and Maintenance cost-share program. The four completed public tree inventories allow for a greater understanding of the role black walnut plays in our community forests. Staff conducted visual surveys for thousand canker disease. The Forest Pathologist attended several out of state meetings on the emerging disease.

Community Conservation Planning

Community Conservation Planners (CCPs) work with local governments, organizations, developers, and citizens to integrate natural resources with the built environment for the benefit of both.

During FY12, CCPs reached 1,280 participants with technical knowledge through 107 programs and trainings, made 1,085 contacts with community organizations, partnerships, and local governments and responded to 200 inquiries. They provided five plans or recommendations, which included 104 acres in urban and suburban communities. CCPs brought conservation information to 786 people by coordinating 35 special events. The CCPs provided community conservation outreach to the public through 18 media efforts and represented MDC at 25 committee and one-onone initiative meetings.

Neosho Conservation Partnership

MDC recognized the City of Neosho for its conservation efforts. For the past year, Neosho has been a focus city for MDC's community conservation efforts. The partnership between MDC and the city has resulted a habitat improvement project at Morse Park, an Ozark cavefish recharge delineation survey, a forestry stewardship plan for the city, a community workshop, an urban deer survey, a Hickory Creek trout opener event, and an urban stream publication.

Forest and Woodland Association

The Forest and Woodland Association of Missouri is a membership based organization launched in 2010. Any Missourian with an interest in trees, forests and forest management is invited to participate. The association provides members an opportunity to network, receive training, and respond to emerging forestry issues and challenges. A cooperative agreement between MDC and the association provided \$30,000 in support in FY12. MDC's greatest efforts have been to explore funding from the American Tree Farm program and to partner with the Missouri Forest Products Association. An executive director was hired in FY12 allowing for a greater focus on recruitment and outreach.

County Aid Road Trust

The County Aid Road Trust program enables MDC to cost share maintenance of roads accessing MDC areas with 36 counties and other local governments statewide. While not all roads are eligible, the program annually provides about \$400,000 statewide.

Fire-Suppression Training

MDC supports volunteer fire departments in many ways. One way is by providing annual wildland fire-suppression training to fire departments throughout the state. We conducted 23 sessions and trained more than 427 local firefighters in fire behavior, suppression techniques and safety at no cost to the fire departments or the volunteers. In addition, we also provide instructors and logistical support for the Midwest Wildfire Training Academy held in Jefferson City each year. This academy draws thousands of participants from throughout the state and the Midwest.

Volunteer Fire Departments

MDC, in cooperation with the U.S. Forest Service, provided \$371,101 in grants to 185 volunteer fire departments. Rural fire departments provide the first line of defense against wildfire. Those serving populations smaller than 10,000 people can participate. These grants help fund protective clothing, equipment, and training.

Equipment was also provided to fire departments through two federal programs. Through the Federal Excess Property Program we obtained equipment valued at \$427,287. The new Fire Fighter Program obtained equipment valued at \$13,165,721. Coordination of these programs is managed by MDC's Rural Forest Fire Equipment Center located in Lebanon. Since the inception of MDC's volunteer fire department assistance program in 1951, we have assigned over \$60 million in total value of equipment to volunteer fire departments.

Stream Teams

Missouri has 3,796 active Stream Teams statewide. Volunteers donated 116,100 hours and their accomplishments included removing more than 459 tons of trash, planting 5,254 trees, and hosting 1,228 events. This year the Missouri Stream Team Watershed Coalition completed The State of Missouri's Streams: Summary of Invertebrate Data 1993-2010. This was the first report to analyze and interpret the Stream Team volunteer data. The report can be found at mstwc.org.

Community Tree Care

Interest in the Tree Resource Improvement and Maintenance (TRIM) cost-share program continues to be strong as Missouri towns have experienced numerous severe weather events. The damage that publicly owned trees have sustained from tornadoes, high winds, flooding, and/or straightline winds has been phenomenal and has generated increased interest in tree care.

In FY12 we received 41 applications requesting \$341,254 in funding. A total of \$271,306 of MDC dollars was spent funding the 37 best applications. Successful applicants receive 60 percent or 75 percent of their total project in cost share within specified limits. The balance of the project was provided by the applicant as the local share. In FY12 applicants matched the MDC contribution by 46 percent, providing \$233,973 in local match.

Partnerships Support Landowners

Staff fostered nearly 40 partnerships with federal, state, and non-governmental organizations. These relationships helped MDC enhance technical, financial, and equipment support to landowners. MDC partnerships to support landowners include: assisting landowners with habitat management on utility rights of way with Ameren Missouri, engaging a wetland specialist to expand wetland design and development services for private landowners with Ducks Unlimited, and partnering with Pheasants Forever and Quail Forever with a national conservation connection in Kansas City.

Timber Harvester Training

We work with Missouri's forest products industry to monitor the use of our state's forest resource. The Missouri Forest Products Association and MDC sponsor logger training courses about forestmanagement principles, introducing new techniques and concepts, and enhancing safety. Eight workshops were held across the state, training 66 loggers in FY12, for a total of 362 trained loggers in Missouri. In addition, 297 trained loggers attended continuing education classes.

Share the Harvest

Conservation agents coordinate and support the Share the Harvest program with the Conservation Federation of Missouri, local charitable organizations, and local meat processors. In 2011, approximately 6,191 hunters donated 317,882 pounds of venison to less-fortunate Missourians. Since the start of the program, nearly 2.5 million pounds of deer meat have been donated to Missouri citizens. Hunters who donate an entire deer may receive a \$60 reduction in the processing price from the Conservation Federation of Missouri. In some cases, local organizations provide additional funds for processing so there is no cost to hunters who donate deer. Hunters also may donate part of their deer to the Share the Harvest program.

Operation Game Thief/Forest Arson

Operation Game Thief/Forest Arson continues to help catch wildlife poachers and forest arsonists. The programs allow anonymous callers to report violations, and callers are eligible for rewards if arrests are made from their calls. Last year Operation Game Thief (OGT) led to 271 convictions from 907 telephone calls. Conservation agents investigate each violation reported. In calendar year 2011, \$10,000 in reward money was paid to callers.

Agricultural Conferences

To connect with state agricultural leaders and agribusiness, MDC participated in all major agricultural conferences and trade shows. In addition to events such as the Farm Bureau Annual Conference, Governors Conference on Agriculture, Missouri State Fair, and the Missouri Cattle Industry Annual Convention, MDC supported technical efforts in partnership with agricultural commodity organizations.

Stream Stewardship Trust Fund

The Stream Stewardship Trust Fund is an in-lieu fee program created to restore, enhance and/or protect stream systems, and associated riparian habitats. The program and funds are administered by the Missouri Conservation Heritage Foundation, and MDC applies for grants to use toward protecting stream resources. In FY12, seven projects costing \$763,896 were approved to protect Missouri's stream and riparian corridors.

Crayfish Bait Industry

The introduction and invasion of nonnative cravfish into lakes and streams is a serious problem. Nonnative cravfish have reduced native cravfish numbers, reduced amphibian and reptile numbers, changed aquatic habitats, and collapsed prized fisheries. The live-bait trade is the primary source for introducing invasive nonnative crayfishes. In response to this problem, some states banned the use of live crayfish as bait.

MDC worked with bait shop owners and inspected crayfish sales records. This effort revealed that crayfish were supplied by commercial sources in Missouri and six other states, and that they also were obtained illegally from the wild. Subsequently, MDC focused on removing illegal species from bait shops and educating bait

vendors on bait regulations and invasive species. At the request of bait shop owners, we published a crayfish identification guide. We value our relationship with bait shop owners because they play an important role in Missouri's fishing industry.

Big Rivers and Wetlands Monitoring

Through a cooperative effort among the U.S. Army Corps of Engineers, U.S. Geological Survey, and states in the upper Mississippi River basin, long-term trends in fisheries, water quality, invertebrates, forest resources, land use, and land cover for the entire upper river system are monitored.

Missouri's contribution is the Big Rivers and Wetlands Systems Field Station, which began operation in 1991. Water-quality, fisheries, forestry, and wetland data are collected year-round. Several agencies use this information in and outside Missouri. Field station staff answer specific research or management questions that come to light from analysis of the monitoring data. Since 2003, these questions have dealt with wetlands renovations, sportfish populations and management, exotic species, and species of conservation concern.

River Basin Management

MDC participated in interstate working groups to implement ecosystem-based management of the Missouri, Mississippi, and White rivers and their floodplains. Management goals focus on conserving natural resources and enhancing recreation. MDC helped direct the use of funds through the Upper Mississippi River Restoration-Environmental Management Program for monitoring, planning, and restoring habitats. The U.S. Army Corps of Engineers funds this program.

Three Environmental Management Program projects on MDC-managed lands include design and construction of the Ted Shanks Conservation Area wetland-enhancement project, and forest and over-wintering fish habitat enhancements on the Upper Mississippi Conservation Area.

Missouri River Monitoring

To enhance the natural resources of the Missouri River the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, U.S. Geological Survey, and states within the Missouri River basin monitor long-term trends in reptile, amphibian, and fish populations including threatened and endangered species. Several universities and agencies in and outside of Missouri and the Missouri River basin use these data to assess habitat improvement activities and ecosystem condition.

The MDC Missouri River Field Station has provided service for these efforts since 2005. MDC manages the data collected by all of the service providers on the Pallid Sturgeon Population Assessment project, which now includes more than 1.3 million data records. Reptile and amphibian monitoring on Overton Bottoms of the Big Muddy National Wildlife Refuge and Thurnau Conservation Area occurs March through July. MDC also monitors year-round fish populations of the Missouri River stretching from Hamburg, IA, to Glasgow, MO. An intensive effort is put forth each April to collect pallid sturgeon for propagation and population augmentation. To date, this field station has captured 604 pallid sturgeon, of which 85 percent originated from hatcheries, and has helped with the stockings of nearly 125,000 pallid sturgeon in the lower Missouri River.

Master Logger Certification

MDC continues to support Missouri Master Logger Certification. To participate, loggers agree to uphold the standards set by the program. The Department awarded a \$7,000 grant to the Missouri Forest Products Association to aid the program. Loggers can be removed if they do not uphold the standards of the program.

The certifying board is composed of a state legislator, a wildlife professional, a master logger from another state, a soil scientist, a representative from an environmental organization, and MDC.

This program gives an outstanding logger an opportunity to be recognized and their skills showcased. It is hoped that landowners would be encouraged to engage these loggers to harvest their timber sales. The state's fish, forest, wildlife, soils, water, and air are better protected when harvesting is done by a certified logger.

Interstate Wildlife Violator Compact

Missouri participates in the Interstate Wildlife Violator Compact. The compact—38 state wildlife agencies—agrees to reciprocally honor revocations/suspensions of hunting, fishing, and trapping privileges for wildlife-related violations.

During FY12, 1,831 people from other states had their privileges revoked in Missouri through the compact. The Missouri Conservation Commission revoked an additional 125 and submitted them to the compact. Participation in the compact also benefits Missourians who travel to other member states for hunting and fishing activities. If found in violation, they may be given the opportunity to resolve the citation by mail rather than being required to post a bond before leaving the member state. They are subject to revocation by all states in the compact, if the citation is ignored.

Community Tree Care Recognized

In partnership with the national Arbor Day Foundation, MDC recognized 82 municipalities as Tree City USA communities. To receive Tree City USA certification, communities must meet these four standards: 1) Have a tree board or forestry department, 2) Adopt an ordinance that outlines how trees on public property will be managed, 3) Spend a minimum of \$2 per capita on tree management, and 4) Celebrate Arbor Day. Most communities exceed these requirements with an average of \$6.08 per capita spent on tree care. More than 44 percent of Missourians live in a Tree City USA community. Communities participating in this program range in size from Kansas City (population of 441,545) to the Village of Twin Oaks (population of 390). Twelve communities initiated or significantly improved existing tree programs, earning a Tree City USA Growth Award.

Utility Providers Recognized

In partnership with the national Arbor Day Foundation, MDC recognized 11 utility providers as TreeLine USA companies (Ameren, Boone Electric Cooperative, Carthage Water & Electic Plant, City of Independence Power & Light, City Utility of Springfield, Columbia Water & Light, Crawford Electric Cooperative, Cuivre River Electric Cooperative, Empire District Electric, Kansas City Power & Light, Ralls County Electric Cooperative). Utility providers must meet these five standards to receive certification: 1) Provide quality tree care 2) Train workers annually, 3) Community tree planting and public education, 4) Tree-based energy conservation programs, and 5) Observe Arbor Day.

Tree Campus USA

MDC certified three Tree Campus USA colleges in FY12. St. Charles Community, Washington University, and William Woods University met the Arbor Day Foundation's five standards for certification. Those standards are: 1) Tree advisory committee, 2) Tree care plan, 3) Tree program with dedicated annual expenditures, 4) Observe Arbor Day, and 5) Complete a service learning project that engages the students in tree management. The three campuses spent \$182,804 on tree care where a total of 27,000 students are enrolled.

Firewise Communities

The Redings Mill Fire Protection District includes Cliff Village, Dennis Acres, Grand Falls, Leawood, Loma Linda, Redings Mill, Saginaw, Shoal Creek Estates, Shoal Creek Drive, and Silver Creek. These 10 communities are recognized nationally as Firewise USA communities. To qualify as Firewise Communities USA, a community must meet these four standards: 1) Complete a community assessment and create a plan, 2) Form a Firewise Board, 3) Hold a Firewise Day event, and 4) Invest a minimum of \$2 per capita on local wildfire mitigation projects. Firewise Communities USA is a National Fire Protection Association program co-sponsored by the U.S. Forest Service, the U.S. Department of the Interior, and the National Association of State Foresters. Their goal is to promote community use of technologies, policies, and practices that minimize the loss of life and property to wildfire, independent of firefighting efforts.

Wildfire Prevention

By way of endorsing a third-party U. S. Forest Service Hazard Mitigation grant to the Southwest Resource Conservation and Development Program, MDC supported an effort to promote wildfire prevention in southwestern Missouri. This area was severely hit by the January 2007 ice storm and a subsequent tornado. This wildfire prevention program has spread across the state into counties and communities affected by the May 2009 wind storm. Heavy wood debris in the forests and woodlands of the affected areas makes wildfire suppression more difficult and hazardous to firefighters. Educating residents about the increased risk of wildfire and how to properly manage or dispose of damaged trees helps reduce fuels and the chance of wildfire in areas where trees were devastated by the storms.

Included in this grant is funding for fire departments working with communities to develop and implement Community Wildfire Protection Plans and the Firewise program. Fire departments are compensated for working with local communities to perform risk assessments and to apply practices to reduce their wildfire risk.

Wildfire Suppression

In FY12, MDC staff worked with fire departments across the state to suppress 3,505 wildfires that consumed 35,141 acres. The leading cause of wildlife continues to be the use of fire to dispose of debris. Staff are required to attend in-house fire training prior to responding to a wildfire. In FY12, 172 participants were trained.

Joplin Tornado Assistance

After the destructive tornado that tore through Joplin and Duquesne, MDC worked with the U.S. Army Corps of Engineers and the State Emergency Management Agency to assess more than 1,000 trees for their likelihood to survive and determine if they posed a safety risk. In addition, the U.S. Forest Service trained and certified 13 MDC employees to serve on the national Urban Forest Strike Team. As part of this training, more than 500 additional trees were evaluated.

As part of a long term commitment to help both communities, two Tree Resource Improvement and Maintenance grants were provided to the City of Joplin. Four plans for three Joplin city parks were completed. Additional financial assistance was provided to Forest ReLeaf of Missouri so they could expand production in their tree nursery to provide thousands of trees to Joplin and Duquesne in the coming years.

To help these two communities reestablish tree cover and to coordinate the many offers of assistance, MDC hired an hourly employee to work with the communities and volunteers. The U.S. Forest Service State and Private Forestry partially funded this effort. The coordinator worked with the City of Joplin facilitating the planting of more than 1,000 trees, enabling the distribution of hundreds more trees to homeowners, and coordinated numerous offers of financial or physical assistance of up to 400 volunteers.

Community Forestry Plan

Community forestry work completed 16 landscape plans for six communities, including plans for three Joplin parks impacted by the May 2011 tornado. Other communities assisted include Paris, Monroe City, Ava, Kirksville, and Bolivar.

Community Forestry Opinion Survey

MDC evaluated attitudes about community trees, the effectiveness of our programs and how we can better assist local communities and the tree industry. More than 18,000 surveys were sent to community leaders, city foresters, and residents statewide. More than 40 percent were returned.

44 City Sample Tree Survey

The 284 sample plots in 44 Missouri communities were resurveyed in FY11. These plots are revisited every 10 years to capture changes to our community tree population. This is the third time the plots have been surveyed providing MDC with information from 1989, 1999, and 2010. The replacement cost of the trees inventoried is \$1.56 billion and the benefits provided by the trees inventoried is \$148 million annually. Results were used to track change in Missouri communities and to help communities statewide manage their natural resource.

Partnerships Aid Birds

A variety of conservation partners and organizations have common goals and strategies for monitoring and managing habitat for a wide range of bird species through the Missouri Bird Conservation Initiative (MoBCI). Established in 2003, MoBCI quickly grew to include 48 organizations. MoBCI helps coordinate the Northern Bobwhite Conservation Initiative, Partners in Flight, and North American Waterfowl Management Plan.

Since 2007, MDC has made about \$100,000 in funds available for MoBCI grants. MoBCI grants require a one to one match of local, state, or federal funds that do not originate from MDC. The match may include acquired realty, partner financial contributions, monitoring and evaluation costs, stewardship costs, volunteer time, etc. Conservation groups such as Ducks Unlimited, Quail and Upland Wildlife Federation, Quail Forever, National Wild Turkey Federation, and Audubon Society and four private citizens have also contributed funds. More than \$1 million in funds have been leveraged for bird conservation efforts on both private and public lands.

Hosted International Meeting

MDC hosted the 40th annual International Hunter Education Association (IHEA) conference in Kansas City. Attendees were from across the U.S. and its territories, Canada, Mexico, and South Africa. There were numerous presentations including world renowned shooter Tom Knapp, Midway USA founder and CEO Larry Potterfield, world renowned celebrity hunter Jim Shockey, and actor, singer, and celebrity auctioneer Leroy Van Dyke. This was IHEA's highest rated conference by attendees since the previous conference held in Springfield in 2002.

Mountain Lion Response Team

During FY12, we recorded more than 264 reports of mountain lions in the state. Most reports we received are from the website reporting form and email account. We confirmed 12 mountain lion sightings this past year. During January of 2012 a young male mountain lion was trapped and then released in Reynolds County. The 122-pound cougar was captured in a live-trap on National Forest Service land near Centerville. We examined the cat, took a variety of measurements, collected tissue for DNA and then released it to the wild. The cat was in excellent physical condition and showed no signs of having been held in captivity.

Midwest Furbearer Workshop

MDC hosted this year's Midwest furbearer workshop. Thirty-six participants attended the workshop, including state furbearer biologists from 10 Midwest states (North Dakota, Nebraska, Kansas, Oklahoma, Missouri, Illinois, Michigan, Ohio, Kentucky, Wisconsin). There were also attendees from other organizations/agencies including: U.S. Fish and Wildlife Service, Association of Fish and Wildlife Agencies, USDA APHIS Wildlife Services and National Wildlife Research Center, University of Mississippi, University of Missouri, Fur Takers of America, Missouri Trappers Association, and Illinois Natural History Survey.

The multi-state decline in red and grey fox populations, mountain lion movements, and similar issues with otter and bobcat management pointed to the need for collaboration among states in collecting and analyzing harvest and observational data. As a result of these discussions, we are moving toward uniform data collection and analysis using statistical population reconstruction for otters and bobcats. This approach will allow states to use harvest data collected from CITIES registration to build robust population models. Comparing harvest, trapper effort, and sex and age composition between states will enable us to measure the impact of different regulations and trapper numbers on population structure and growth.

Landowner Habitat Cooperatives

MDC continues to refine prioritization of habitat and species management through targeting specific geographies where success is most likely. The current focus is to provide the establishment and support for landowner habitat cooperatives that place landowner leaders in control of the direction, activities, and accomplishments.

Cooperatives allow landowners to work together to improve their acreages for the benefit of species or habitats of mutual interest to them and MDC. There are 18 cooperatives focused on everything from deer, to forestry, to loess hills grasslands.

Although technical assistance is by far the most valued service provided to cooperative members, MDC also provides connectivity to financial assistance through a variety of sources.

Mid-America Grassland Contest

MDC played a key role in sponsoring the 13th annual Mid-America Grassland Evaluation Contest in Springfield. Other sponsors included the Missouri Forage and Grassland Council, the University of Missouri Extension, and the USDA-Natural Resources Conservation Service. The national contest, which was started in Missouri in 1991, is open to FFA and 4-H student teams from all 50 states. The contest is divided into four sections: 1) soils interpretation, 2) plant identification, 3) grassland condition, and 4) wildlife habitat. Participants are required to rotate through all four sections. The goal of the contest is to educate students in the benefits, use, and management of grasslands for livestock production and wildlife habitat. The contest has grown to 100 teams representing 59 schools competing through six district contests and has been developed into curriculum taught in high schools across Missouri.

Standard for Forest Management

In FY12, MDC and more than a dozen partners began to develop sustainable forest management guidelines. These guidelines will be a new tool for resource managers, conservation contractors, loggers, and landowners. The final document will be peer reviewed, based on the best available scientific research, and will be presented for public

comment to ensure that it achieves the social, environmental, and economic objectives for sustainability. A website was created to inform the public about the development of this product.

Restoration on Private Land

The Igneous Glades and Woodlands Priority Focus Area in Southeast Missouri was awarded a national U.S. Department of Agriculture (USDA) Cooperative Conservation Partnership Initiative grant. During 2011–2016, the grant will provide \$575,000, of which MDC will provide 25 percent in matching funds, to landowners within selected Priority Focus Areas in Ste. Genevieve, St. Francois, and Iron counties to assist in the restoration of glades, woodlands, and associated natural communities to improve wildlife habitats. Over the past 2 years, approximately 1,379 acres of prescribed burning, woody cover control, and forest stand improvement were completed, restoring more 1,450 acres of glades and woodlands for a total of \$176,090. There are 90 state threatened and endangered species of plants and animals, and one federally threatened and endangered species, the Indiana Bat, that can benefit from this project.

During FY12 the Iowa/Missouri Joint Oak Savanna and Open Woodland Initiative resulted in 28 private landowner projects in Adair, Sullivan, Putnam, and Schuyler counties partially funded with cost share assistance through the National Wild Turkey Federation, Missouri Bird Conservation Initiative, MDC, and the USFWS Partners Program. Nearly \$25,000 in provided cost share was used for woody cover control, forest stand improvement, cool season grass conversion, warm season grass seeding, and prescribed burning. Projects have resulted in quality savanna and woodland indicator species such as lead plant.

More than 12 landowner projects were assisted in the Joint Iowa/Missouri Grand River Grasslands project in 2012. Projects were funded by USDA Farm Bill conservation programs and MDC cost-share funds and included a variety of grassland restorations.

Private Land Elk Habitat Restoration

A national Cooperative Conservation Partnership Initiative Program grant was awarded in 2011 for the Current River Hills of South Missouri. This project is available to private landowners within selected areas in Reynolds, Shannon, and Carter counties. There is \$625,000, distributed over 5 years, available to landowners who are interested in increasing the wildlife habitat quality of working grazing lands, forest land, and glade/woodland natural communities. In 2011 and 2012, \$180,129 in financial assistance was provided to landowners to enhance about 1,515 acres of wildlife habitat. This project provides the opportunity for agriculture producers to utilize conservation practices such as prescribed burning, woody cover control, stream crossings, and forest stand improvement to improve their agriculture operation while simultaneously increasing and improving the quantity and quality of available wildlife habitat.

MDC hosted a landowner workshop in Ellington to discuss options such as cost shares and wildlife habitat needs. The workshop was targeted towards landowners in Carter, Shannon, and Reynolds counties. This workshop was followed with a landowner field day in the elk restoration zone. The field day included an update on elk restoration and a private land tour that highlighted habitat work for elk and other wildlife. More than 100 people attended the tour.

There are more than 36 cooperators in the elk zone implementing elk habitat restoration.

MU Farms Partnership Expands

MDC and the University of Missouri Extension hosted their annual field day at the University of Missouri Bradford Research and Extension Center east of Columbia. The workshop is for landowners, students, and quail enthusiasts. MDC staff were on hand to discuss small game management and provide tours of the quail and small game habitat improvements on the farm. About 140 people attended the event. Bradford Farm and MDC also cooperate on a number of projects involving pollinators, quail, and habitat practices.

MDC worked with the University of Missouri's Southwest Center near Mt. Vernon, to develop a series of habitat demonstrations on the Center's grounds. There are plans to implement additional wildlife demonstration projects over the next several years. These demonstrations will be seen by thousands of southwest Missouri farmers, ranchers, and landowners.

In cooperation with the Forage Systems Research Center at Linneaus, MDC staff developed a plan to improve quail habitat along pastures and idle areas to showcase quail habitat on the farm. Fes-

cue eradication, wildlife friendly grass plantings, and edgefeathering were demonstrations completed in FY12. All of these projects were funded in part using MDC's landowner cost share assistance program. MDC, the University of Missouri, and Quail Forever planted 800 shrubs and created about 2 acres of additional edge feathering. Staff also gave a quail habitat presentation at the field day with about 120 participants.

In addition, a loess hill prairie restoration plan was developed with staff from the Graves-Chappel Research Center near Craig.

Landowner Small Game Habitat Work

During FY12, MDC awarded \$133,000 to Quail Forever, Quail and Upland Wildlife Federation, Quail Unlimited, and the National Wild Turkey Federation. Through the Habitat Challenge Grant, each organization provides matching funds to help landowners complete habitat work on their land.

This is the fifth year MDC provided the Habitat Challenge Grant to conservation groups interested in improving upland habitat on private land. Over the past five years, MDC provided more than \$600,000 in funds through the grant, totaling more than \$1.2 million with partner contributions.

Landowners use Habitat Challenge Grant funds to plant native grasses and wildflowers, eradicate undesirable vegetation, shrub planting, and prescribed burns. Cost share is also provided for other quail friendly practices such as edge feathering, timber stand improvement, and strip disking.

In addition, MDC entered into an agreement with Quail Forever to staff three biologists in key geographies to promote USDA Farm Bill conservation programs. The new positions will focus on small game and pollinator habitat restorations.

Farm Bill Activities and Programs

The Conservation Reserve Program (CRP) continues to remain popular among Missouri landowners and producers even when competing with the current agriculture commodity prices. The USDA Farm Service Agency held general CRP sign-up periods in March 2011 and March 2012. Of the 234,259 acres enrolled during the 2012 sign-up period, almost 95 percent were re-enrolled CRP acres that had been scheduled to expire at the end of the year. An additional 9,236 acres were enrolled into CRP for the very first time. The previous two CRP sign-up periods worked to maintain 1,143,490 CRP acres that protect thousands of tons of soil from erosion, provide water quality benefits to all Missouri citizens, and provide thousands of acres of wildlife habitat. In Fiscal Year 2012, MDC staff evaluated more than 2,900 CRP sites.

Enrollment of CP33-Habitat Buffers for Upland Birds remains above 34,000 acres. In fact, in response to the continued interest in Missouri, the Farm Services Agency recently allocated an additional 5,000 CP33 acres to Missouri to ensure available acres would meet landowner interest in the program. The SAFE program or State Acres for Wildlife Enhancement has successfully enrolled approximately 21,045 acres of quality upland wildlife habitat that directly benefits bobwhite quail, prairie-chickens, and many other upland wildlife species.

The USDA NRCS held a statewide sign-up for the Environmental Quality Incentive Program (EQIP) in FY12. Although EQIP is primarily dedicated to providing assistance to working agriculture operations, in 2011 \$1,092,142 of EQIP funding was obligated to wildlife habitat restoration and forestry management practices. An additional \$343,426 was allocated to wildlife habitat restoration through the Wildlife Habitat Incentive Program (WHIP). Over the past 3 years, EQIP and WHIP have provided more than \$82 million in financial assistance to Missouri producers and landowners of which at least \$7,328,212 went directly towards wildlife and forestry practices.

Currently, Missouri has 141,380 acres enrolled in Emergency Wetland Restoration Program (EWP) and Wetland Restoration Program (WRP) making Missouri 6th in the Nation for acres enrolled in the WRP program. Of the acres enrolled in WRP, more than 85 percent are perpetual easements. This year, NRCS allocated \$7.5 million dollars to Missouri for the WRP program. These funds were used to enroll 6,503 acres of WRP in a single year. NRCS received 78 applications with perpetual applications (76) totaling 5,520 acres.

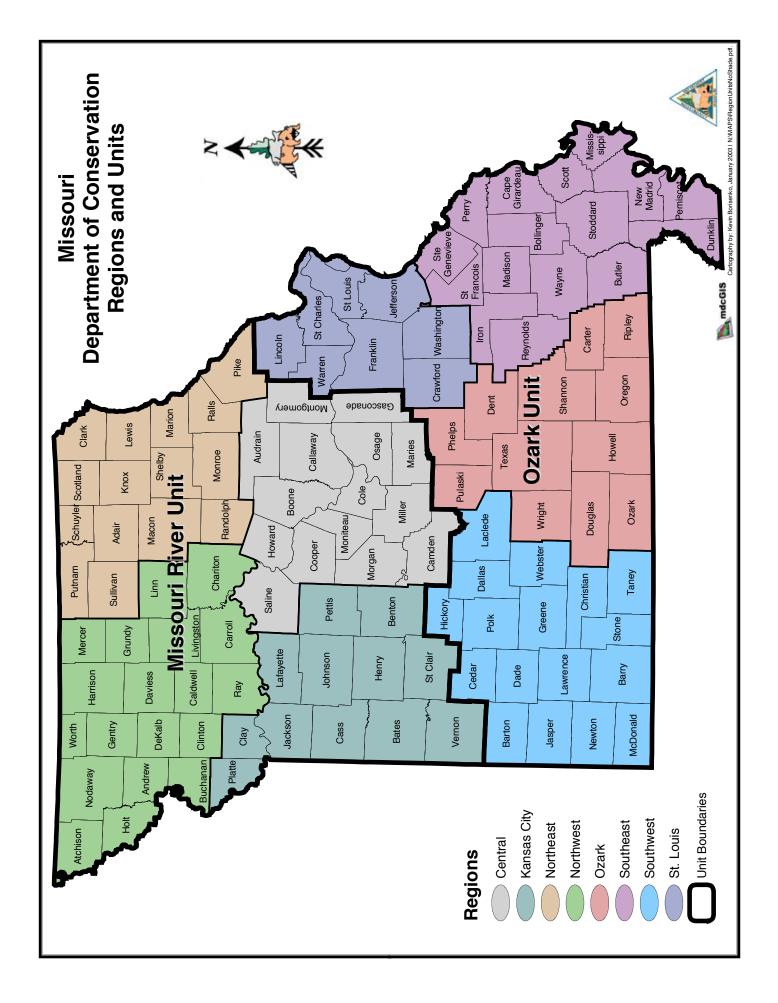
Cass County is a leader in the bobwhite quail restoration. Cass County was the second county in the Nation to achieve its Northern Bobwhite Conservation Initiative (NBCI) goals of creating and improving quail habitat. The majority of the habitat work completed was accomplished through the enrollment of crop borders into the Conservation Reserve Programs (CRP), particularly into the continuous CRP practice, CP33 Habitat Buffers for

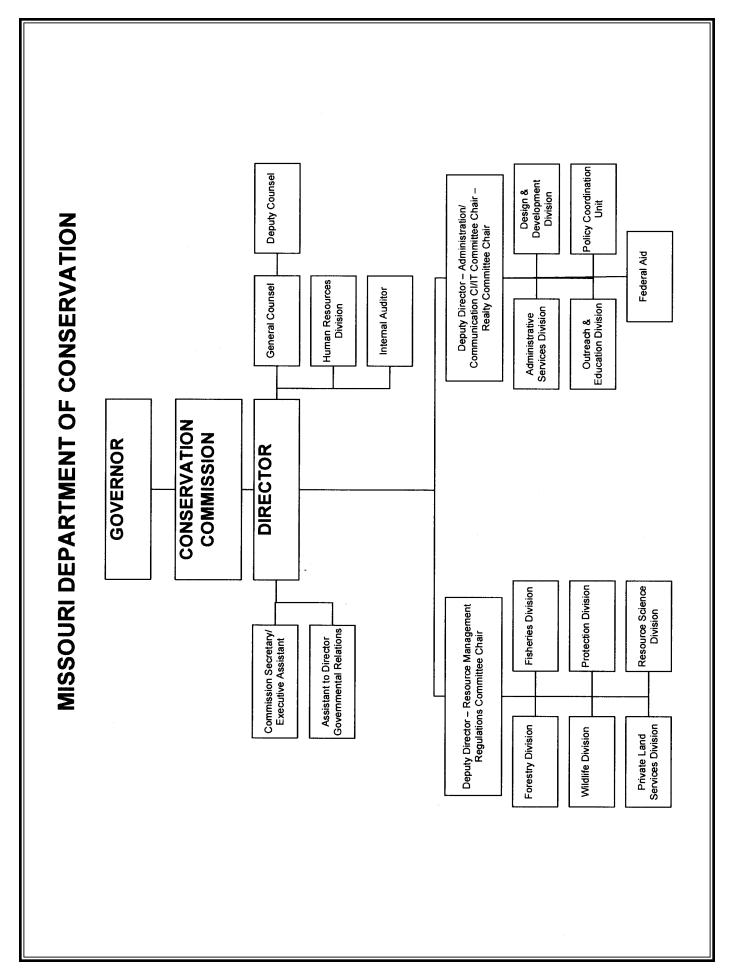
Upland Birds. To further improve the CP33 quail friendly habitat, the Cass County Soil and Water Conservation District was awarded a Cooperative Conservation Partnership Initiative \$100,000 grant to increase shrubby cover adjacent to native warm season grass and forb plantings and establish native warm season grasses where CRP was not an eligible option. These practices enhanced existing habitat and provided landowners the opportunity to create new quality habitat for bobwhite quail. This successful project is scheduled to conclude in April 2013. Over the past 3 years, 137 acres of edge feathering and native warm season grass plantings were completed on 79 properties in Cass County. This project has used \$69,754 in available funding.

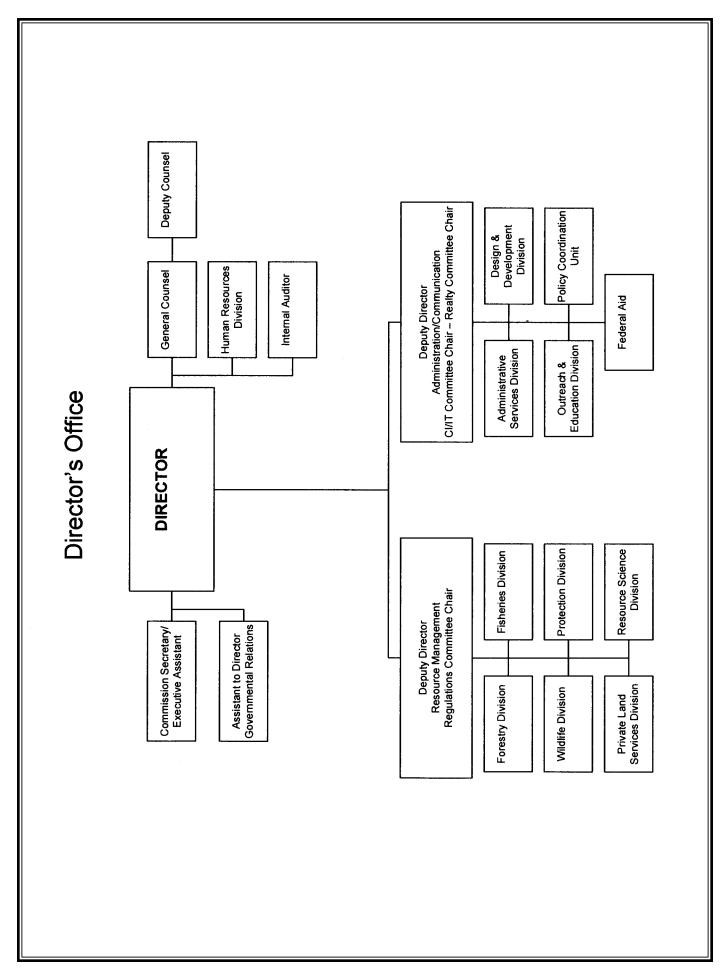
Shape the Next Farm Bill—The 2008 Farm Bill, which is the largest source of conservation funding available to assist private landowners to protect and enhance soil quality, water quality, air quality, and wildlife habitat, is scheduled to expire September 2012. MDC has historically actively participated in Farm Bill legislation at the state and national scales. The Farm Bill Coordinator position participates with the Association of Fish and Wildlife Agency (AFWA) Government Policy Analysts to ensure the Missouri perspective and conservation issues are well represented and addressed by policy makers in Washington D.C. MDC participation at this level helps to ensure MDC maintains our role as a national leader in Farm Bill program and policy development.

Organization and Administrative Descriptions

- ▲ Department Regions and Units
- ▲ Department Organizational Chart
- ▲ Director's Office and Department Divisions







Director's Office

Robert L. Ziehmer, Director

Director Ziehmer, appointed by the Conservation Commission, directs all programs and activities of the Department of Conservation and directly oversees two deputy directors, an assistant to the director, the general counsel, an internal auditor, and the Human Resources Division chief.

Tom Draper, Deputy Director for Resource Management

Deputy Director Tom Draper is responsible for the divisions of Fisheries, Forestry, Wildlife, Private Land Services, Protection, and Resource Science. He also chairs the Regulations Committee, a standing committee that recommends statewide regulations for the Wildlife Code of Missouri to the Conservation Commission.

Tim Ripperger, Deputy Director for Administration/Communication

Deputy Director Tim Ripperger is responsible for the Administrative Services Division, Design and Development Division, Outreach and Education Division, the Policy Coordination Unit, and the Federal Aid Unit. He chairs the Capital Improvements and Information Technology Committee and the Realty Committee.

Aaron Jeffries, Assistant to Director

The assistant to director is responsible for governmental liaison with the state legislature, other elected officials, state agencies in the executive branch, and the governor's office staff. He also represents the director on the Land Reclamation Commission.

Tracy McGinnis, General Counsel

The general counsel is legal advisor for the Conservation Commission, the director, and department staff. She oversees the deputy counsel, who manages Realty Services and the Grants and Donations program.

Lisa Wehmeyer, Internal Auditor

The internal auditor provides independent audit of Department operations, policies, procedures, records and compliance with laws and regulations to ensure effectiveness and accountability. She also serves as the Custodian of Records and Hearing Officer.

Policy Coordination Unit

The Policy Coordination Unit serves the director's office and department staff by managing department, statewide, and interagency issues. Examples of coordination include:

- Coordinating environmental and resource management policy issues;
- Representing public fish, forest, and wildlife interests by coordinating and providing comments and recommendations to federal and other agencies authorized to conduct environmental reviews;
- Coordinating intra- and inter-state fish, forest, and wildlife resources associated with the Mississippi, Missouri, and White river basins;
- Coordinating multi-agency resource issues;
- Administering and coordinating department resource policies, procedures, and strategic planning;
- Coordinating public involvement activities and applying human dimensions of conservation information to Department issues, including social and economic facts, analyses, and citizen input opportunities.

Federal Aid

Federal Aid staff administer the Department's federal aid and grant revenue. Some agencies from which the Department receives revenue include the U.S. Fish and Wildlife Service, U.S. Forest Service, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, and Natural Resource Conservation Service. The Department's Federal Aid staff administer approximately 85 grants with the most significant from the Sport Fish and Wildlife Restoration program.

Realty Services

Realty Services is responsible for handling the acquisition of land and land rights for the Department; resolving boundary, encroachment, trespass, or access issues; handling easement requests; maintaining records of real estate inventory and distributing annual in-lieu tax payments to Missouri counties.

Regulations Committee

Who the Committee is:

Wildlife Code promulgation authority is provided to the Missouri Conservation Commission by the Missouri State Constitution. The Regulations Committee is appointed by the Director and is responsible for all rules in the Wildlife Code. Members include Division chiefs from Fisheries, Forestry, Wildlife, Protection, Resource Science, and Private Land Services divisions. The Department's General Counsel serves in an advisory role and the committee is chaired by the Deputy Director-Resource Divisions.

What the Committee is:

The Department of Conservation's Regulations Committee makes recommendations to the Director and the Conservation Commission about modifying the regulations in the Wildlife Code. Those recommendations are based on information gathered from Missourians who have suggestions or complaints about wildlife management or regulations, hunting and fishing surveys, opinion polls, and public meetings across the state. The committee then seeks the expert opinion of the Department's research biologists and managers. Based on this information, the committee makes its recommendations to the Conservation Commission.

Major Challenges:

- Balancing the Department's responsibility to manage and protect Missouri's resources with needs and desires of partners and citizens.
- Finding effective methods to manage wildlife disease in the state.
- Limit the spread of invasive species in the state.

How it meets the Commission's responsibility:

The Conservation Commission and the Department of Conservation have constitutional responsibility to protect and manage Missouri's forest, fish, and wildlife resources for the citizens of the state now and for the future. Regulations are established to best manage Missouri's valuable plant and animal communities, to provide equal opportunity for Missourian's to share and enjoy these resources, and to promote public safety. Three factors—biological impact, social concerns, and enforceability—come into play as a regulation develops.

Summary of significant regulation changes during 2012:

The Conservation Commission approved recommendations to:

- Set dates and limits for 2012 deer, turkey, and migratory bird seasons.
- Established regulations for hunting and fishing on new conservation areas.
- Modified regulations for hunting and fishing on existing conservation areas and areas owned by other entities and managed by the Department of Conservation.
- Removed the requirement for affixing an approved safety sticker to a permit holder's firearm while hunting wild turkey.
- Restricted activities that are likely to unnaturally concentrate deer and promote the spread of CWD.
- Added managed deer hunting permits to the list of reduced price deer and turkey permits for youths.
- Renamed the muzzleloader portion of the fall firearms deer season to the alternative methods portion. The Department follows established procedures to promulgate changes through the Secretary of State's office. As part of that process, and in order to make well-informed decisions, the Department collects public comments on all proposed changes.

Capital Improvements and Information Technology Committee

Who the Committee is:

The committee is chaired by the Deputy Director. Administration and voting members include all ten Division Chiefs in the Department. Staff Support for the committee includes the federal aid coordinator, all division's support staff, and Policy Coordination.

What the Committee is:

The Department of Conservation's Capital Improvements and Information Technology Committee, (CI/ IT) has the responsibility and makes recommendations on developing annual budgets for capital improvements and technology expenditures. The CI/IT Committee makes recommendations on construction projects in all phases of Department responsibility. In addition, the committee ensures strategic analysis and long term planning of the Department's capital improvements and technology requirements for the future.

Major Challenges:

- Balancing the Department's responsibility to manage and protect Missouri's natural resources with the needs and desires of Missouri's citizens in conjunction with the necessary infrastructure to support enjoying public lands and learning about conservation.
- Maintaining aging infrastructure and planning for the future to meet the needs and desires of Missouri citizens.

2012 CI/IT Accomplishments:

- Continued the Golden Anniversary Wetlands Initiative—renovation and improvement of Duck Creek, a major wetland conservation area.
- Continued the implementation of electronic permits within the Department's hunting and fishing permit
- Continued to demonstrate an increase in energy efficiency of Department buildings and facilities.
- Developed computer software to enhance lands database, living infrastructure, project tracking, fleet management, and other key information technology initiatives.
- Completed the new Central Regional Office and Conservation Research Center in Columbia.
- Completed the new green roof on a portion of MDC headquarters in Jefferson City.

Realty Committee

Who the Committee is:

The Committee chairman is the Deputy Director. Administration and Division Chiefs with resource management responsibilities sit on the committee. Fisheries, Forestry, and Wildlife divisions are all voting members of the committee. Realty Services, Policy, and Administrative Services all provide assistance and support to the committee.

What the Committee is:

The Realty Committee is responsible for developing strategic priorities for real estate activities, including acquisition, disposal, easements, right of ways, boundary issues, and all related real estate activities. The committee is responsible for reviewing and recommending land transactions throughout the Department.

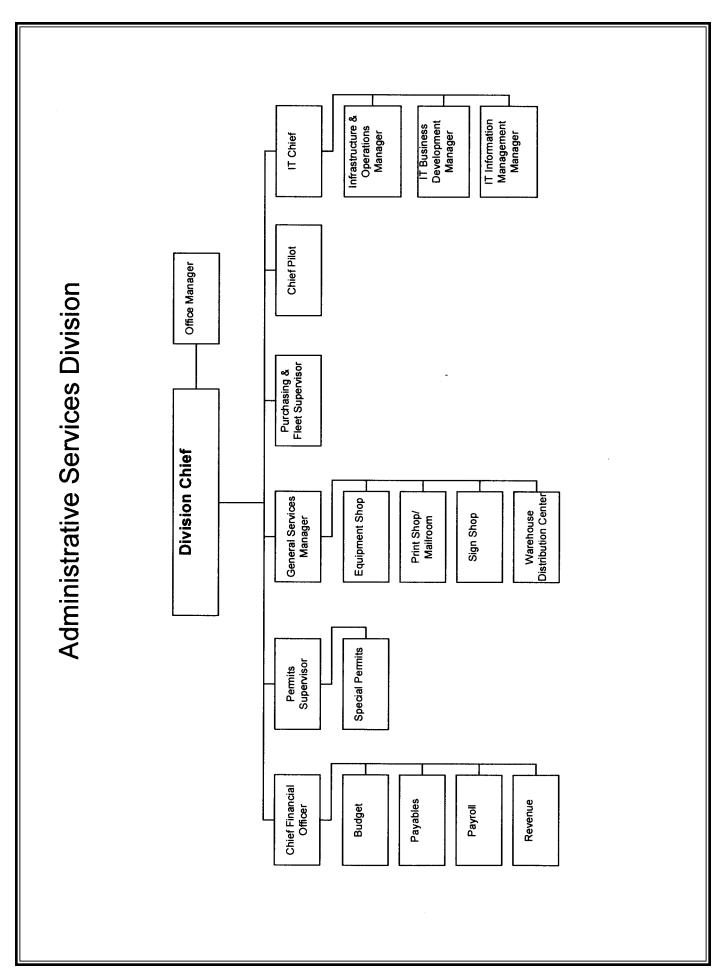
Major Challenges:

- Balancing the Department's responsibility to manage and protect Missouri's natural resources related to holding land in public trust.
- Protecting and preserving unique natural resource features, wildlife and fisheries habitats and populations through holding land in public trust.
- Providing Missouri citizens a readily available opportunity to explore, learn, and enjoy Missouri's natural resources through land held in public trust.

2012 Realty Accomplishments:

- Identify priority geographies with high quality natural resources to work with partners on during the year.
- Expanding a business tool kit through enhanced data management and computer software to improve land management for increased citizen enjoyment.
- Purchased and opened the Myron and Sonya Glassberg Family Conservation Area with partners—Myron Foundation and the USDA Forest Service Forest Legacy Program.





Administrative Services Division

Mission: Serving MDC staff to provide agency-wide support and expertise in a manner that ensures financial accountability, promotes wise use of assets, provides ancillary services, and offers technological solutions for satisfying Department responsibilities and needs that meet public expectations.

Administrative Services Division fulfills its mission by serving MDC's internal and external stakeholders through the following sections that comprise this division.

Programs

Financial Services – This section provides a broad range of financial functions that support MDC's operations, while carefully managing the agency's assets, which have been entrusted to its care. Revenue projections and management, internal and executive budget management, financial analytical support, agricultural crop management, accounts payable, and MDC's payroll are the functions this unit oversees.

Permit Services - This unit is responsible for the distribution and management of point-of-sale automated permits, managed hunt/special permits, and commercial and landowner permits.

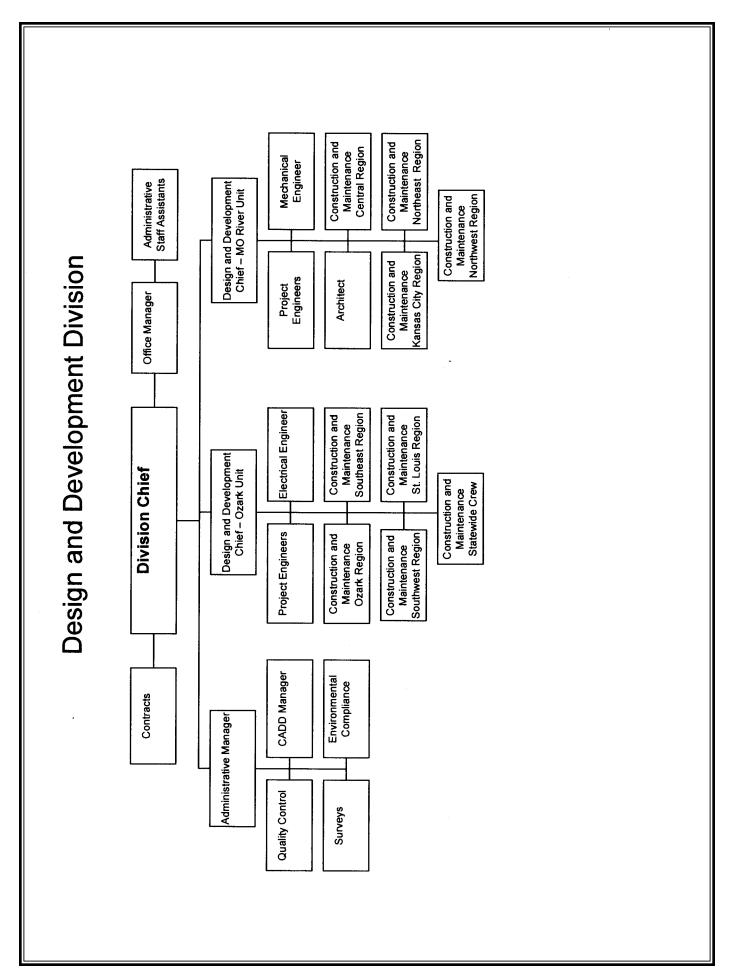
Purchasing and Fleet Services – This unit provides support for purchases of services and commodities, ensuring compliance with state purchasing laws and MDC policies and procedures. It is also responsible for fixed-asset inventory and for ordering MDC vehicles, seeking ways to improve and minimize the traveling performed with state vehicles.

Information Technology Services—Communication responsibility for the entire agency is entrusted to this section. Better known as IT, employees provide a wide range of services which include data, telecommunications and radio system management, helpdesk operations, software support, network operations, and business- and application-development functions.

General Services - This unit oversees equipment management and maintenance, sign production, distribution center operations, and printing and mailing functions.

Flight Services - This unit provides flight services for MDC resource functions such as wildlife management, fire control, and enforcement. Flight Services is responsible for the upkeep and maintenance of MDC-owned aviation equipment.

Administrative Services Division makes every effort to achieve its mission by maintaining the financial integrity of MDC and ensuring prudent and wise use of its assets. We provide a broad range of high-quality support services to MDC's staff and programs. Not only do we lead and facilitate the effective use of technology in MDC operations, but we also acquire and maintain MDC equipment.



Design and Development Division

Mission: To provide high-quality professional engineering, architectural, surveying, and construction/maintenance services to assist MDC in carrying out its mission.

Goals

- Design and construct public-use facilities that are in harmony with the environment and enhance public use of our natural resources
- Provide sound conservation engineering assistance to other MDC divisions and outside partners (communities, counties, and landowners)
- Provide high-quality maintenance to MDC facilities and conservation areas
- Provide excellent and timely customer service

Organization

The division is organized into three units, with administrative and design staff located in the central office and construction and maintenance staff located in each of the eight regions.

Programs

Engineering and Architecture—The division provides engineering and architectural designs to implement capital improvement (CI) budget. Staff handles all aspects of design and development on projects, which may include performing investigations, conducting feasibility studies and/or environmental assessments, preparing design drawings with associated contract specifications, and construction management services. Types of projects include boat accesses, docks, roads, parking areas, office and storage buildings, fish hatcheries, fishing lakes and ponds, nature centers, shooting ranges, trails, and wetlands.

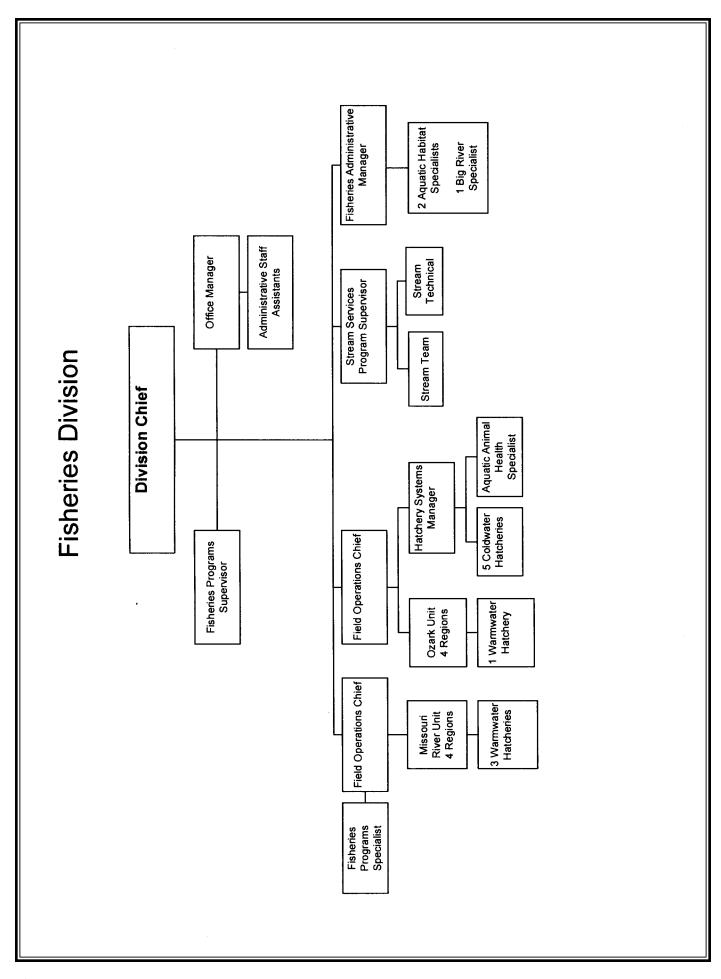
Technical Support—In addition to handling the CI projects, engineering staff also provides support and design expertise on non-capital improvement projects to MDC divisions. Staff also provides design drawings and estimated quantities on MDC's repair and renovation projects; these efforts support our regional construction and maintenance superintendents and field resource staff.

Surveys - Employees in this unit are responsible for engineering and construction surveys and land boundary surveying for property boundary delineation.

Construction and Maintenance—In each region, the division maintains superintendents, carpenters, equipment operators, and facility maintenance technicians. This staff is responsible for the construction of capital-improvement projects assigned to it, as well as small construction projects, and repair and renovation projects needed by other MDC divisions. They provide facility maintenance to nature centers and regional offices, and perform routine maintenance at unstaffed department areas. Other maintenance tasks include mowing grass, grading parking areas and entry roads, cleaning boat ramps, and performing minor maintenance on privies, docks, and pavilions.

County Aid Road Trust (CART) - The division administers the Department's CART Program, which involves cost sharing of roadway maintenance with counties and other governmental subdivisions to help ensure that roads accessing Department areas are properly maintained and provide adequate access.

Environmental Compliance—The division coordinates and obtains regulatory environmental permits and cultural clearances for all MDC construction and management activities involving soil disturbance on public lands owned and managed by MDC.



Fisheries Division

Mission: To professionally manage the fish and associated aquatic plants and animals of Missouri for the use and enjoyment of the people.

Goals

- Maintain aquatic biodiversity
- Reduce the effects of aquatic nuisance species
- Provide enjoyable fishing trips
- Protect aquatic habitat
- Inform and educate the public about Missouri's aquatic resources

Missouri's aquatic resources are vast and diverse. Missouri has almost 17,000 miles of permanent rivers and streams and another 39,000 miles of intermittent streams. The state also has about 780,000 acres of lakes (36 percent public). Each year, millions of people use and enjoy our waters, and fishing continues to be one of our most popular outdoor activities. About 22 percent of our residents aged 16 and older fish sometime during the year. During 2011, MDC sold 1,246,899 fishing permits and tags of all types. Fishing is big business and very important to the state's tourism industry.

Organization: To carry out its mission and achieve its goals, the division has fisheries management staff deployed in MDC's eight regions. Management efforts are supported by four warmwater fish hatcheries, five coldwater fish hatcheries, an aquatic animal health specialist, aquatic habitat and big river specialists, the Stream Unit, and central office staff.

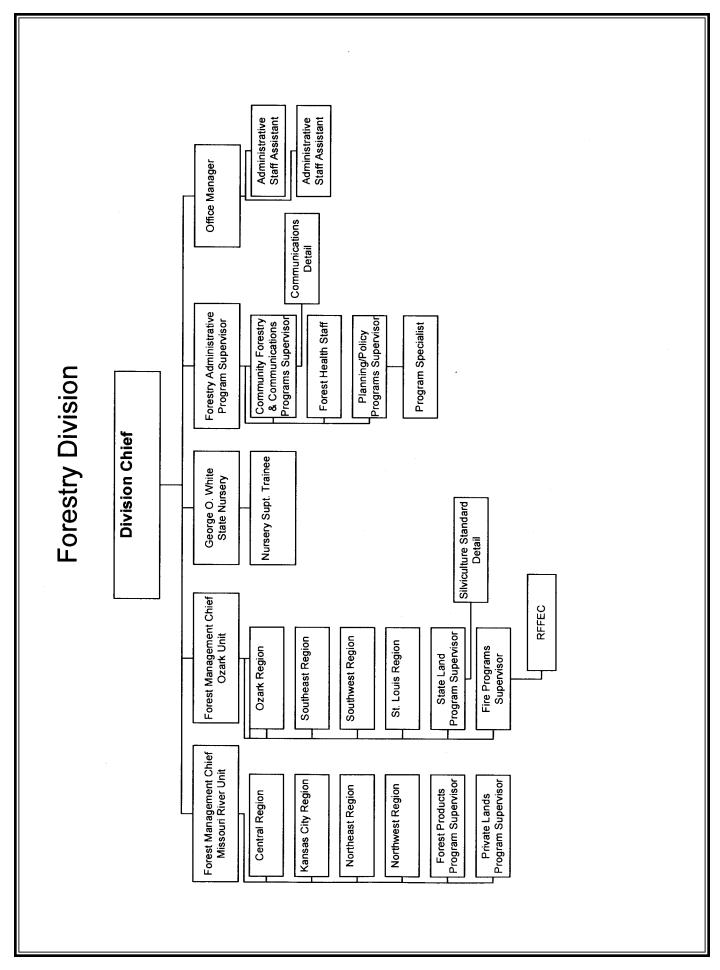
Programs

Regional staff is responsible for monitoring and maintaining the quality of the aquatic resources, managing the public fisheries resources, providing technical guidance in lake and stream management to private landowners and other state and federal agencies, providing and assisting with public information and education, and representing the division and MDC on matters pertaining to the aquatic resources of their region.

The staffs of the four warmwater hatcheries are responsible for rearing the fish needed to stock public waters, waters used for special fishing events, and aquatic resource education. They also play a vital role in our efforts to restore state and federally endangered species. The five coldwater hatcheries rear the trout needed to stock public waters. Their employees are also responsible for stocking and managing the four trout parks that are enjoyed by more than 410,000 anglers each year.

The Stream Unit is responsible for the Missouri Stream Team and Volunteer Water Quality Monitoring public-involvement programs, which consisted of 75,920 citizen volunteers in 2011. Both are cosponsored by the Missouri Department of Natural Resources and the Missouri Conservation Federation. It also oversees a Stream Technical Unit, which provides technical stream services to MDC staff, other state and federal agencies, and private landowners.

Central office staff directs and administers division programs, works on the acquisition and development of public fishing and boat access areas, coordinates angler recognition programs, coordinates the production of technical and popular written materials, and provides administrative support for division and MDC staff and programs.



Forestry Division

Mission: To protect and manage the forests of the state for long-term resource health and sustainability and for the use and enjoyment of Missouri's citizens.

Goals

- Implement the strategies outlined in the recently completed Missouri Forest Action Plan as approved by the United States Secretary of Agriculture.
- Engaging Missouri landowners to actively care for their woods through education, technical service, and development of partnerships with other agencies, organizations, and forest products industry.
- Raise the performance bar of the Forest Products Industry.
- Conduct public-land management activities that are scientifically based and aimed at developing and maintaining healthy forest and woodland ecosystems.

Organization: To fulfill its mission, the division is organized into eight main program areas as described below. Administrative staff members are assigned to specific program areas, while field staff work across all program areas.

Programs

Private Land - Foresters assist Missouri landowners with forest management through one-on-one contacts. Foresters often use the Tree Farm program, Forest Stewardship program, state and federal cost-share programs, and offer technical advice to assist landowners. We help more than 2,300 landowners with management on 51,500-plus acres annually.

Public Land-The division manages more than 440,000 acres of public forest land. Foresters also provide technical assistance on lands managed by the Wildlife Division. We annually complete more than 49,680 acres of active management. This includes forest inventory, tree planting, timber sales, forest-stand improvement, wildlife-management practices, and glade and savanna management.

Fire—We have statutory responsibility for the state's wildfire suppression. Last year, 3,505 fires burned 35,141 acres in Missouri. Division personnel work closely with more than 776 fire departments to offer training, provide federal excess property, provide grants for the purchase of fire equipment, and promote wildfire-prevention activities.

Community Forestry-This program provides planning and technical assistance to communities and homeowners. In addition, the Tree Resource Improvement and Maintenance (TRIM) program provided cost-share assistance to more than 37 Missouri communities for tree planting and maintenance of their community forest resources. In partnership with the National Arbor Day Foundation we promote and administer the Tree City USA program certifying 81 communities for dedicated care of their tree resource, the TreeLine USA program recognizing 11 utility providers in the state for quality tree care, and the Tree Campus USA program recognizing 3 colleges and universities in the state for dedicated care of their tree resource.

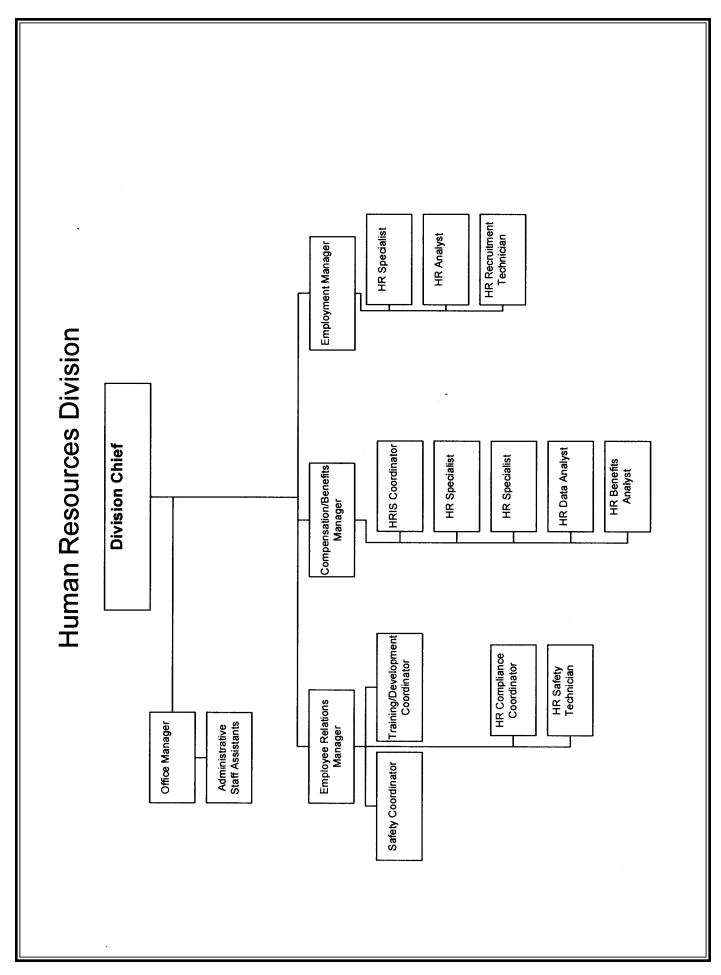
Forest Products—This program provides technical assistance to the wood products industry and statewide promotion of Best Management Practices (BMPs) for water quality on timber sales. We work with the Missouri Forest Products Association to provide programs such as the Professional Timber Harvesters and Master Logger Certification programs. We work with entities interested in the emerging bio-energy field and provide technical training for field foresters regarding wood use, timber harvesting techniques, and contracting and implementing BMPs. A \$6 million American Recovery and Reinvestment Act grant funded the construction of wood-burning boiler systems in six select Missouri schools.

Outreach and Education - Forestry Division works closely with the Outreach and Education Division to increase Missourians' understanding about their state's forest resources and proper forest-management activities. In addition, foresters conduct programs, field days and workshops for schools, special-interest groups and the general public on a wide range of forest-management issues.

State Forest Nursery – The nursery annually grows and distributes approximately 3 million seedlings of more than 60 species. The seedlings include trees and shrubs suitable for reforestation and wildlife-habitat restoration activities. The seedlings are planted on both public and private land throughout the state.

Forest Health - Assuring that Missouri has a healthy and growing forest resource is the goal of the forest health program. Diagnosing, monitoring, and providing management solutions for a wide range of routine pests are components of this program. A significant amount of time and effort is expended in overseeing monitoring efforts for invasive pests like gypsy moth, emerald ash borer, and thousand cankers disease of black walnut.





Human Resources Division

Mission: Sustains human resources services and programs necessary to recruit and retain a diversified, dynamic workforce, and ensures we are considered an employer of choice.

Goals

- Assist MDC in hiring and retaining a highly trained and diverse workforce
- Advance practices that encourage employee empowerment and recognize job accomplishments
- Ensure ongoing employee training and development programs are predicated on important job competencies and offered in the most efficient and cost-effective manner
- Reinforce safety-conscious attitudes and practices in all aspects of employee work

Programs

Compensation - Staff performs compensation and classification activities that are used to support an employee-compensation program, which is both competitive and fiscally responsible. Staff also administers significant employee-benefits programs such as a comprehensive medical and life-insurance program.

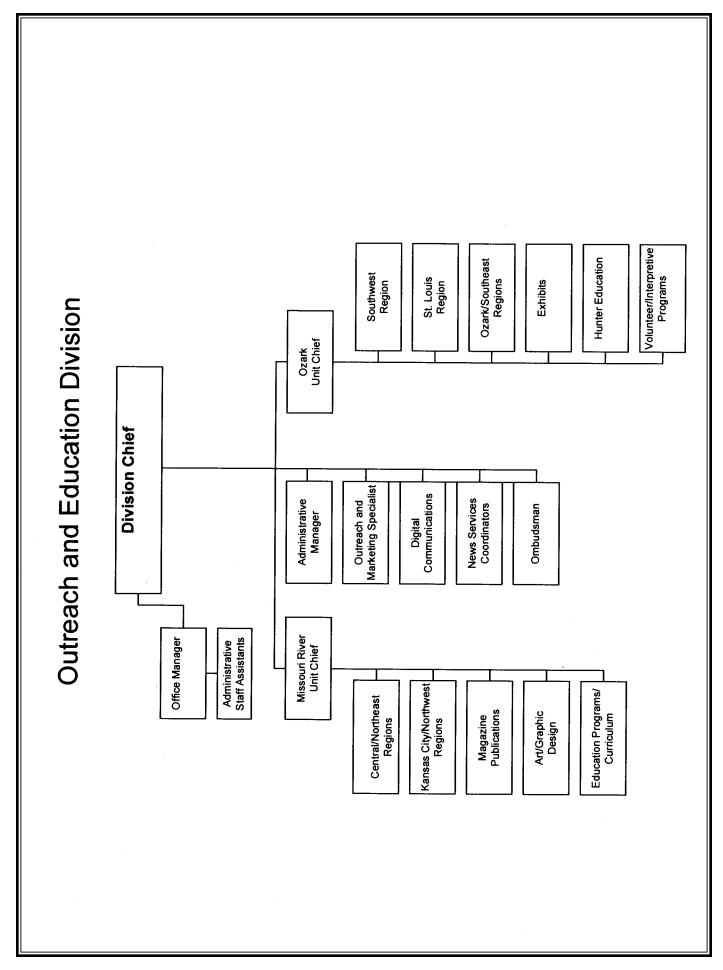
Employee Relations – Staff coordinates activities promoting employee relations such as programs that recognize years of service, special achievement, and retirement, and administers employee health and wellness programs that include health screenings and health education. Staff also assists employees and supervisors during grievance and corrective action processes to ensure that objective, fair, and appropriate actions occur.

Policy Administration - Staff maintains MDC's Human Resources Policies by developing new or revised employment-related policies that help supervisors guide employees uniformly and fairly. Staff also tracks state and federal laws, executive orders, and regulations that address human resources management issues, and works to ensure MDC is in compliance.

Recruitment and Selection—Staff uses a variety of recruitment methods to attract qualified applicants for job vacancies and assists supervisors with all activities during the evaluation and recommendation processes. In addition, staff monitors MDC's affirmative-action effort to ensure equal-employment opportunities.

Training and Development—Staff administers MDC's employee development and leadership-training programs. Among them is the Professional Development Academy, which provides training for all employees. The training is based on specifically identified competencies (knowledge, skills, behaviors, and attitudes) that MDC considers important to success.

Safety – Staff administers loss-control programs including safety training, hazard identification on public lands, chemical safety, personal injury, vehicle accident, and public-mishap reporting and monitoring.



Outreach and Education Division

Mission: O&E will be the catalyst in telling the stories of Missouri's fish, forest and wildlife resources in ways that energize and empower all Missouri citizens to participate in outdoor recreation activities.

Goals

- Teach Missourians about healthy and sustainable plant and animal communities
- Provide all Missourians with the skills and knowledge to enjoy the outdoors
- Communicate the many benefits people get from conserving our fish, forests and wildlife
- Teach the importance of science-based decisions and ethical behavior in balancing how we live with our fish, forests, and wildlife
- Help Missourians understand these key concepts of conservation:
 - a. A healthy environment needs a diverse mix of plants and animals.
 - b. Forests, grasslands, rivers, and wetlands are always changing—with or without us. To live in balance with the natural world, we must understand how it works and work with it.
 - c. It's natural for what's on the ground to flow downhill into streams and ponds. To protect the health of our waters and the life that depends on them, we must be mindful of what we put on the land and how we change it.
 - d. Hunting, fishing, trapping, and harvesting wood are part of our heritage, provide us with valuable resources and, perhaps most important are tools that can be used to improve and maintain the health of our fish, forests, and wildlife long into the future.

Programs

Outreach—The Missouri Conservationist magazine is mailed to more than 500,000 readers each month and covers a variety of nature, conservation, and outdoor-recreation subjects. Xplor, a kids' magazine, reaches more than 100,000 readers and offers suggestions for family oriented outdoor activities. We serve up millions of Web pages each year, produce free publications, for-sale books, and news releases on topics as diverse as bird identification, hunting and fishing regulations, and how to create wildlife habitat. The ombudsman helps answer citizens' questions and helps to investigate concerns and resolve complaints.

Conservation Nature Centers, Education Centers, and Visitor Centers—These are located in Jefferson City, Kirkwood, Blue Springs, Springfield, Cape Girardeau, St. Charles, Winona, St. Louis, Branson, and Glencoe. Exhibits and naturalist-led programs, as well as walking trails, offer about a million visitors each year a variety of opportunities to learn about and enjoy Missouri's nature. These facilities host programs for families, women, and other target audiences that teach skills to enjoy the outdoors.

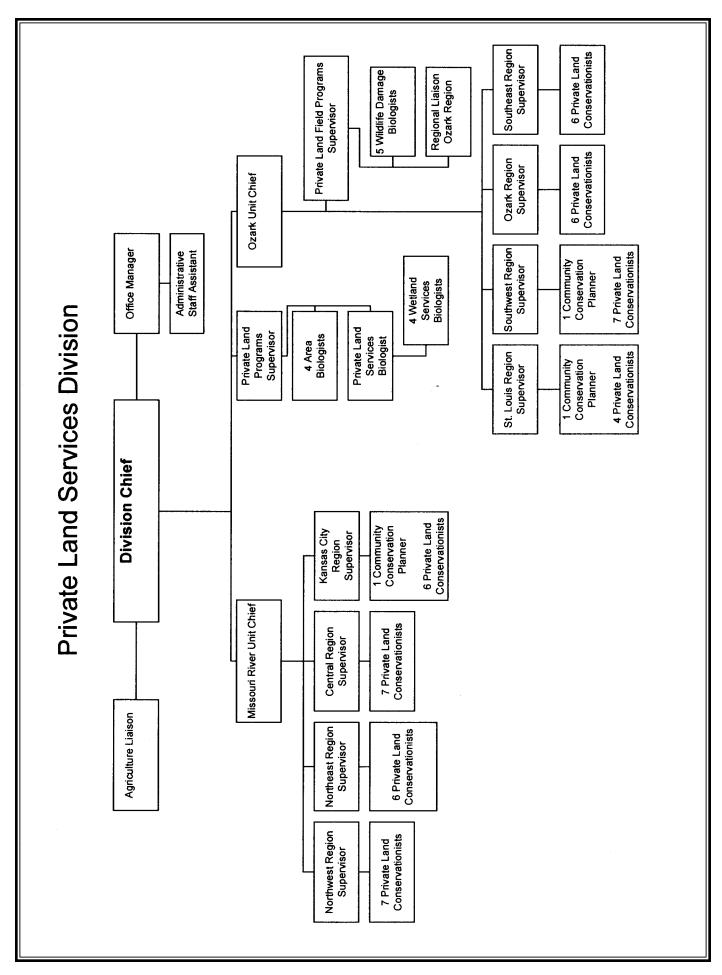
Hunter Education—Since 1988, hunter-education training has been mandatory for all hunters born on or after Jan. 1, 1967. O&E staff works with the conservation agents to coordinate volunteer hunter-educators, who provide about 950 classes each year. These result in hunter certification of about 25,000 people annually. Online course expands the training opportunities.

Shooting Range/Outdoor Education Centers – Five staffed shooting ranges provide safe, inviting places for hunters and others to practice shooting rifles, shotguns, handguns, and archery equipment. Classes are offered to the public and designed to give beginning shooters and hunters the skills they need. More than 130,000 people each year use the staffed ranges. In addition, more than 75 unstaffed ranges (including both firearms and archery ranges) serve Missourians throughout the state.

Citizen Involvement (MDC Volunteers, Missouri Master Naturalist) – Several programs help Missourians promote conservation at a statewide and grassroots level. More than 2,500 citizens volunteer through a number of different O&E programs. More than 100 citizens volunteer at staffed shooting ranges, nearly 400 at MDC nature centers, more than 1,000 through the Master Naturalist program and more than 1,000 citizens are involved in the Volunteer Hunter Education program. This translates to more than 250,000 volunteer hours for conservation activities.

Discover Nature Schools - Missouri's children are the key to Missouri's future. Working closely with the Missouri Department of Elementary and Secondary Education, we have developed conservation education curriculum materials for grades kindergarten through 12. These curriculums use Missouri examples to teach science-based concepts. The materials are available to all Missouri schools at no charge.





Private Land Services Division

Mission: Help landowners meet their land management objectives in ways that enhance fish, forest, and wildlife conservation.

Organization: With 93 percent of Missouri land in private ownership, the health of our natural resources will be determined by private landowners. In recognition of the need to provide enhanced support to traditional agricultural producers, as well as growing numbers of people who own land for recreation, Private Land Services Division was established in 1999. The division contains fish, forest, wildlife, and agriculture professionals who provide conservation assistance to private landowners in Missouri.

Goals

- To provide timely technical advice to private landowners who request assistance
- To help interested private landowners provide meaningful benefits to fish, forest, and wildlife resources that need attention
- To increase awareness of conservation importance by connecting with agriculture and communities

Programs

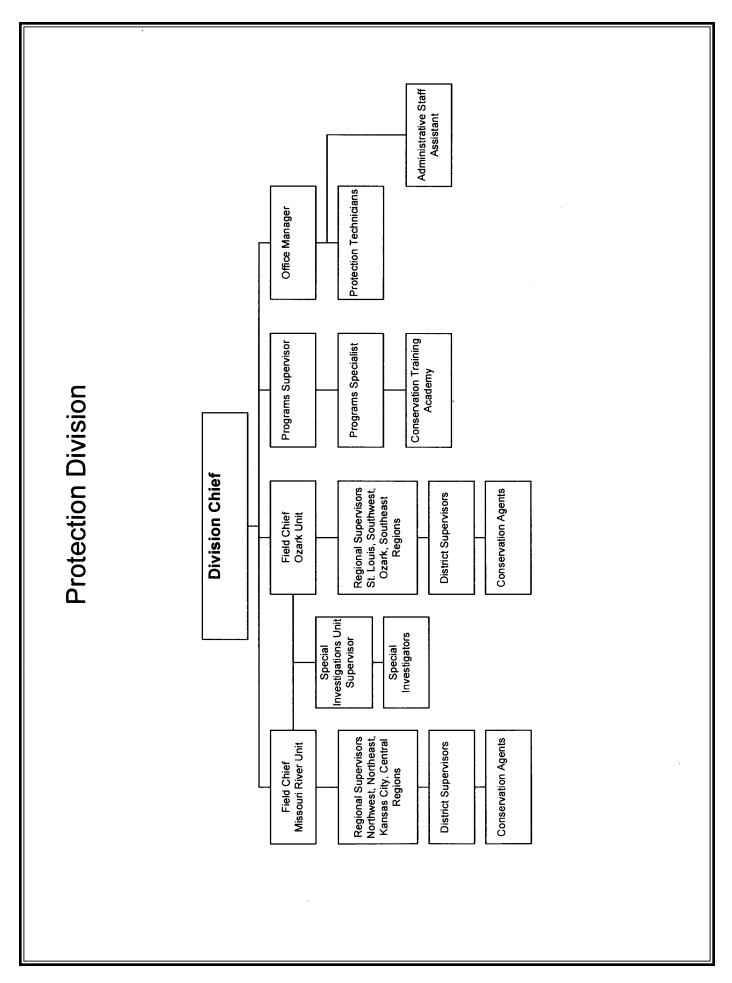
Technical Support—Private Land Conservationists are available to evaluate resource needs and provide advice/recommendations to private landowners through in-office or on-ground visits, as well as workshops, field days and other initiatives. Most of these positions are co-located in USDA service centers to make contact easy for private landowners throughout the state.

Financial Assistance-MDC has established effective working partnerships with private landowners through the Natural Resources Conservation Service and Farm Service Agency to integrate fish, forest, and wildlife considerations into implementation of Farm Bill programs that include Conservation Reserve Program, Wetland Reserve Program, Environmental Quality Incentives Program, Grassland Reserve Program, Conservation Stewardship Program and Wildlife Habitat Incentives Program. MDC is also in partnership with non-governmental organizations such as Ducks Unlimited, Quail Unlimited, the National Wild Turkey Federation, Quail Forever, Pheasants Forever, and Quail and Upland Wildlife Federation to develop costshare and other initiatives through matching agreements.

Wildlife Damage Assistance - Wildlife damage-control biologists provide expert and specialized technical assistance to private landowners who experience problems with wildlife including beaver, coyote, otter, Canada geese, deer, and other species.

Agriculture Liaison - Liaison efforts with agricultural agencies and groups foster communication and understanding of fish, forest, and wildlife issues as they relate to agriculture. These efforts are important since 65 percent of the land area of Missouri is included in farms.

Community Conservation - Community Conservation Planners in Kansas City, St. Louis, and Springfield/Branson/Joplin areas are available to deliver natural-resource technical services at the municipal, county, and regional levels. Their job focus is to work with communities, urban planners, and developers to help them make informed land-use decisions that incorporate the conservation of Missouri's forest, fish, and wildlife resources.



Protection Division

Mission: To protect and conserve Missouri fish, forest, and wildlife resources and to serve citizens through a coordinated program of resource law enforcement, education, information, and one-on-one contacts.

Goals

- To provide high-quality resource law-enforcement services to the public for protection and conservation of Missouri's fish, forest, and wildlife, as well as for safe and proper public uses of conservation areas
- To provide opportunities for all citizens to use, enjoy, and learn about fish, forests, and wildlife through educational and informational programs and habitat management advice
- To represent the Conservation Commission, Department of Conservation, and the state with knowledgeable, respectful, well-trained, and professional employees versed in all general MDC programs in every county

Programs

Conservation Agents – Agents carry out a variety of programs for MDC within their county assignments. Major job components are resource law-enforcement activities, hunter education, local media liaison duties (many with regular radio/TV programs and newspaper articles), educational and informational presentations to adult and youth groups, wildlife surveys, response to fish kills, wildlife-nuisance and damage complaints, and basic fish-, forest-, and wildlife-management advice and services to private landowners.

Conservation agents contacted 200,714 hunters and anglers in FY12 to ensure compliance and to provide regulation information. During these contacts, agents noted 27,288 resource violations, issued 3,631 written warnings, and made 7,256 arrests. From those 7,256 arrests, 96 percent resulted in a guilty plea or verdict. This high conviction rate indicates excellent public support and high-quality work by agents.

Operation Game Thief - Operation Game Thief provides a way for citizens to anonymously report poaching incidents with the opportunity for a monetary reward. In the calendar year 2011, OGT produced 271 convictions from 907 telephone calls, which resulted in \$10,000 in reward money being paid to informants. The Operation Game Thief traveling exhibit was used at 14 events throughout Missouri this past year.

Revocations—Missouri is a participating state in the Interstate Wildlife Violator Compact (IWVC). The compact is a legal organization of the wildlife agencies of 38 member states that agree to reciprocally honor revocations/suspensions of hunting, fishing, and trapping privileges for wildlife-related violations. During the last fiscal year, 1,831 people from other states had their privileges revoked in Missouri through provisions of the Interstate Wildlife Violator Compact; an additional 125 were revoked for cause by the Conservation Commission in Missouri and submitted to the IWVC. Participation in the compact also benefits Missourians who travel to other compact member states for hunting and fishing activities. If found in violation, they may be given the opportunity to resolve the citation by mail rather than being required to post a bond before leaving the member state. They are subject to revocation by all compact states if the citation is ignored.

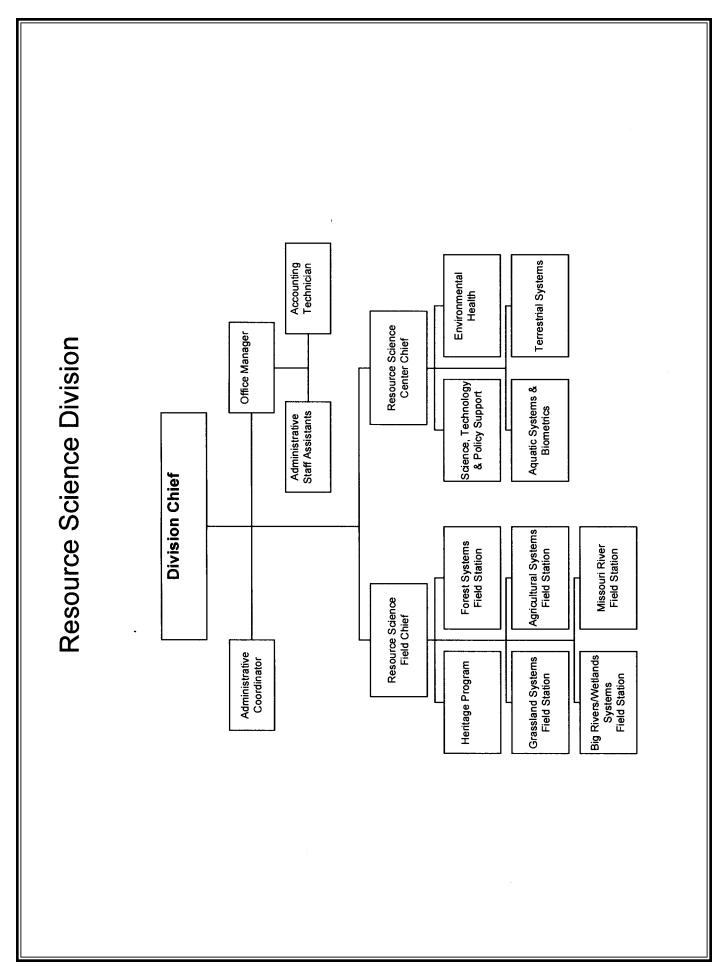
Hunter Education—Hunter-education certification or apprentice hunter authorization is required for purchasing any type of Missouri firearm-hunting permit for people born on or after Jan. 1, 1967 (except the youth deer-and-turkey hunting permit). Conservation agents work with Outreach and Education Division personnel and approximately 1,200 volunteer instructors to coordinate hunter education courses in all 114 Missouri counties. Protection Division personnel also are responsible for investigating hunting incidents throughout the state.

Hunting Method Exemption Program-The Hunting Method Exemption program provides special exemptions to physically disabled people by allowing them to hunt and take wildlife by methods not otherwise legally permitted. During FY12, 4,279 hunter method exemptions were approved.

Group Fishing Permit Exemptions – Protection Division administers permit-exemption authorizations to supervised groups involved in rehabilitation programs or groups of hospital patients or people with disabilities under therapy or for educational purposes. During this past fiscal year, 421 group-fishing permits were issued for outings—providing fishing experiences to people who otherwise may not be able to participate in outdoor fishing activities.

Share the Harvest-Conservation agents and the Conservation Federation of Missouri coordinate the Share the Harvest program, where hunters donate deer meat to those less fortunate through established charitable organizations. During FY12, approximately 6,191 hunters donated 317,882 pounds of venison to needy Missourians. Since the inception of the program, nearly 2.5 million pounds of deer meat have been donated to Missouri citizens. Hunters donating venison to the program pay for the processing and tell the processor how many pounds of meat they want to donate. Hunters who donate their entire deer may receive a \$60 reduction in the price of processing, which is paid to the processor by the Missouri Conservation Federation. In some cases, local organizations provide additional funds for processing so there is no cost to hunters who wish to donate deer.





Resource Science Division

Mission: Provide the science-based information needed to conserve, appreciate, and effectively manage the living resources of Missouri.

Goals

Natural-resource management is based on sound biological, geographical, and sociological information. An objective to establish a nationally recognized, science-based model for conservation will be accomplished by:

- Ensuring ongoing development of a comprehensive and integrated understanding of Missouri's living resources and their values to society
- Using accumulated knowledge to inform and recommend conservation actions
- Evaluating the biological and social impacts of conservation actions
- Reporting emerging knowledge of Missouri's living resources

Resource Science Division is organized around five integrated units and functions rather than traditional disciplines, and is dedicated to delivery of management assistance through five field stations; this approach was the basis for the following organizational units within the division (see organizational chart):

Terrestrial Systems scientists strive to understand plant and animal habitat relationships, monitor population status, and develop harvest and species-management recommendations. Staff is regularly involved with specialized projects to monitor wildlife, plant diversity, and plant and animal population changes.

Aquatic Systems and Biometrics scientists conduct research and surveys that focus on issues involving fisheries management, wetland and waterfowl management, fish communities, watersheds, streamriparian-floodplain systems, reservoirs, in-stream flow, species of conservation concern, and interactions among predators and prey. This group develops harvest management recommendations for statewide fish populations, waterfowl, and other migratory birds. Biometricians ensure statistically sound study designs and the use of appropriate statistical techniques to analyze and interpret complex natural resources questions.

Science, Technology and Policy Support staff work to link and improve access to databases which document Missouri's rich biodiversity and support research and management objectives. Post-season hunter and angler harvest surveys, attitude surveys, and public-use surveys are conducted to better understand the opinions and behaviors of Missouri resource users and to ensure that human-dimensions information is integrated with biological information to inform management decisions. Natural-resource economics data are collected in conjunction with the public use-and-attitude information. GIS staff use geospatial technology and products to support natural-resource management and policy decisions, archive the processes and evaluate the results. The GIS program supports ArcGIS users though out the Department. Training courses are conducted to help train new ArcGIS users and improve the skills of existing users.

The Environmental Health unit primarily provides the services that ensure monitoring and protection of Missouri's fish and wildlife resources. Primary functions include protecting aquatic biodiversity such as mussel conservation and genetics research, water quality, and providing responsive service to agency staff, the public, and other agencies and entities. Staff coordinates pollution and fish-kill investigations with the Department of Natural Resources, and monitors contaminants in fish with the Department of Health.

The Heritage Program unit provides expertise and location information to MDC, its partners, and the public on plants, reptiles and amphibians, karst communities, mammals, and species of conservation concern. Our vehicles are workshops, publications, personal contact, and Missouri's Natural Heritage program. Through this program, the status and presence of 1,145 species of conservation concern and natural communities are tracked. Scientists survey for species presence and population trends, develop life-history information, and make management evaluations. Staff ensure accurate documentation and archiving of occurrences of species of conservation concern and natural communities that can be used for regulation purposes and management.

The Field Unit of Resource Science Division is leading regional management evaluations by developing protocols and study designs with the goal of learning by doing. Field stations, actively integrated with the division's centralized functions, focus on improving understanding of ecological systems, functions, and processes by working with regional staff throughout the state.

- 1) The Grasslands Systems Field Station in Clinton focuses on ecological processes and management implications for cool- and warm-season grass pastures and hay lands, native prairie, savannas and glades, and grassland-associated fish, invertebrate, wildlife species of conservation concern and all streams and impoundments fed by grassland watersheds.
- 2) The Forest Systems Field Station in West Plains focuses on ecological processes and management implications for upland forests, glades, savannas, springs, karst, fens and cold- and warm-water streams and impoundments drained by forested watersheds and management of forest-associated fish, invertebrate, and wildlife species of conservation concern.
- 3) The Big Rivers and Wetlands Systems Field Station in Jackson focuses on Missouri's large rivers and associated floodplains to understand landscape-level ecological processes. Staff develops tools and strategies to improve channel and floodplain habitats, bottomland forests, and wetlands for fish, invertebrate, and wildlife communities including species of conservation concern.
- 4) The Agricultural Systems Field Station in Kirksville emphasizes annually cropped lands that produce cereal grains, oil crops, crops for human consumption, and annually planted livestock forages, Also included in the field station's focus are retired crop lands including CRP plantings, cool-season grass pastures and old fields, concentrated-livestock operations, and streams and impoundments drained by agricultural watersheds and management for agriculturally associated fish, invertebrate, and wildlife species of conservation concern.
- 5) The Missouri River Field Station in Chillicothe focuses on issues directly related to management of the Missouri River. Many aspects of large-river ecology are addressed by the Big Rivers and Wetlands Field Station, including some important to the Missouri River. However, several active restoration and recovery programs are being conducted along the Missouri River, and this field station brings a focused and coordinated monitoring approach among agencies to help ensure the success of these activities.

Programs

Population management - Manage for, and when feasible, restore viable populations of plants, fish, and wildlife compatible with the ecological capability of the land and balanced with the desires of resource users and the public.

Resource Science Division identifies priority population management challenges and develops recommendations, in collaboration with resource divisions, to manage harvested species, species of concern, and invasive species.

Ecological processes - Increase our understanding of the processes that determine habitat conditions for native and introduced animals and plants.

Erosion and deposition through water, wind, and fire are the natural disturbance and renewal processes that are essential to maintaining healthy systems and functions. The division focuses investigations on how to effectively re-establish or mimic these processes in Missouri's contemporary landscape to ensure restoration and management of plant and animal communities.

Management evaluation - Ensure that results of management and policy actions are measured and appropriately linked to resource-related outcomes, budgets, and staff time.

Ongoing evaluation of resource responses and resource uses are essential to determine whether goals are met and to understand when change is needed. Resource Science Division promotes learning by doing to improve resource-management programs and to ensure accountability of staff and budget resources.

Human dimensions – Provide and promote the use of human-dimensions information in the management decision process.

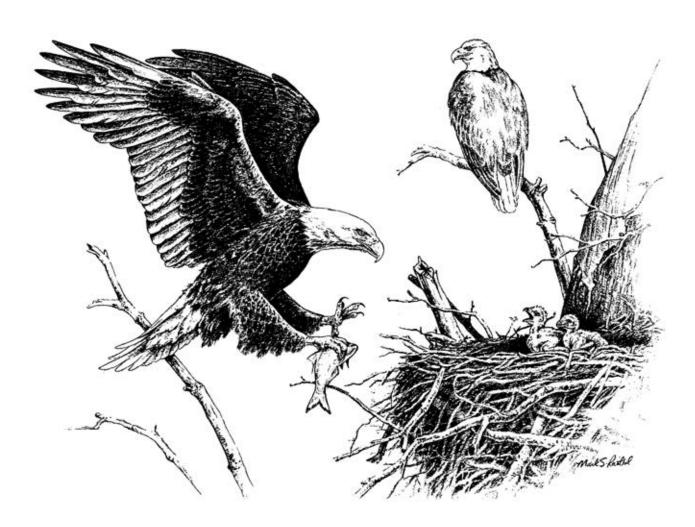
Resource Science Division collaborates with other divisions to ensure that human-dimensions information is acquired and used in policy and management decisions. This information is used to track changing public expectations, anticipate demographic trends, and ultimately provide the information needed to make sound resource policy and management decisions.

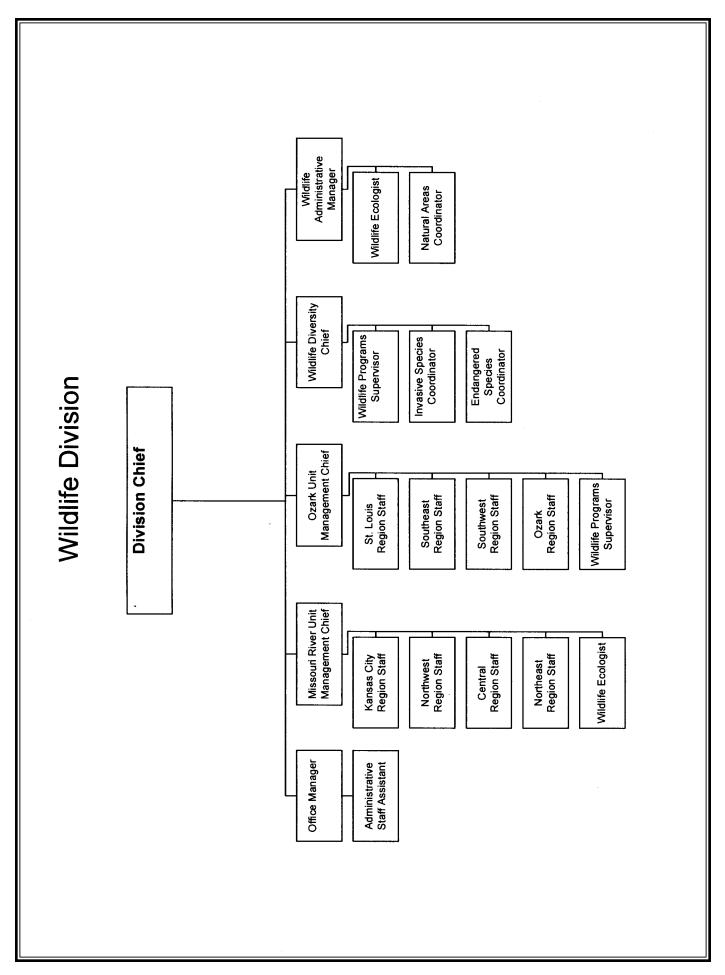
Large-scale planning—Ensure that all planning and program efforts are based on sound science and include evaluation measures.

Advances in Geographic Information Systems and associated ecological and geospatial applications (e.g., Ecological Classification Systems) are used to inventory, assess and monitor resource condition, and management results at national, state, regional, and area scales.

Information transfer—Manage, share, and transfer data collected in a useful, archivable and easily obtain-

The division ensures that information about resource investigations, population status, harvest, and public use is timely, current, accurate, and available in a form that is useful.





Wildlife Division

Mission: To conserve for public benefit Missouri's wildlife resources and the landscapes on which wildlife depend, and to manage public lands to conserve and enhance their natural resources, provide vital ecosystem services, and invite public use and enjoyment.

Goals

- Balance wildlife resource needs with public expectations
- Advocate wildlife and biological diversity in conservation efforts
- Actively seek ways to inform peers, cooperators, and citizens about wildlife stewardship
- Provide opportunity for all citizens to use, enjoy, and learn about wildlife and their habitats
- Manage conservation areas that provide opportunities for citizens to recreate and enjoy the outdoors

Programs: Wildlife Division is responsible for the management of Missouri's wildlife resources and the habitats upon which they depend to best serve the long-term interests of the people of the state. Fulfilling this role involves a wide range of programs and activities on public, as well as private, land.

Strive for wildlife diversity through natural community management/restoration on MDC lands

- Manage MDC's Wildlife Diversity program in a way that benefits the full range of MDC programs and Missouri landscapes
- Continue support of the Missouri Natural Areas program
- Continue to coordinate MDC's endangered species program
- Restore natural communities on MDC lands, especially native grasslands and wetlands
- Continue a renewed focus on the active management of wildlife habitats and plant/animal communities on MDC lands
- Ensure that aquatic species are profiled in agency wildlife diversity efforts, especially the State Wildlife Grant and Landowner Incentive programs
- Implement management programs on conservation lands that feature priority focus areas for bird conservation as outlined in Partners in Flight, Joint Venture plans, and Important Bird Area recommendations

Develop and strengthen effective conservation partnerships

- Administer Missouri's Comprehensive Wildlife Strategy, an approach to conservation planning and implementation within a framework of partnerships to integrate conservation action for all wildlife statewide
- Administer state wildlife grants to improve opportunities for MDC to work with conservation partners to conserve species with the greatest conservation needs
- Continue to promote all-bird conservation in Missouri through participation in the Missouri Bird Conservation Initiative, within the framework of 62 organizations and private-citizen partners
- Through the Golden Anniversary Wetlands Initiative, assemble the conservation partnerships necessary to secure grants and other funding for rehabilitation of wetland-management structures on the oldest wetland-management areas
- Continue to focus on grassland birds, especially prairie chickens, to enhance existing and future partnerships with communities near their habitat

Coordinate MDC invasive-species activities in conjunction with other affected/involved divisions

- Integrate the coordination of invasive/exotic species control into agency and Wildlife Diversity programs
- Control invasive/exotic species on conservation lands, especially in natural communities, while taking actions where appropriate to control the introduction of new invasive/exotic species to MDC lands

Public Resources Management-MDC area facilities/infrastructures maintained and operated in a way that invites public use

- Ensure that conservation area facilities are clean and operated in ways that welcome citizen visitors to the areas
- Maintain infrastructures of all types in ways that enable them to meet their use expectations
- Administer the Wildlife Restoration Grant in ways that provide federal support for operations, maintenance, habitat management, and resource planning on conservation lands
- Develop mourning-dove habitats as a means to attract doves and hunters to MDC lands
- Provide special recreational opportunities through deer, dove, turkey, and waterfowl managed hunts

Deer populations balanced with the interest and tolerance of landowners, hunters, and the general public

- Manage conservation area deer-hunting programs in ways that provide a range of hunting opportunities for deer hunters as outlined in the deer strategic-direction statement
- Ensure that deer populations on conservation areas do not create problems for neighbors
- Assist private landowners with deer-harvest management programs on private lands

Manage forests on MDC lands that promote forest health, sustainable wood products, wildlife habitat, and ecosystem restoration

- Continue efforts to assist Forestry Division staff in the attainment of agency timber-management objectives
- Actively pursue opportunities to use timber harvests as a means to attain natural-community restoration objectives, especially for woodlands, savannas, glades, and prairies
- Assist Forestry in natural area management activities, such as prescribed burning, on Forestry areas

Conservation by the Numbers

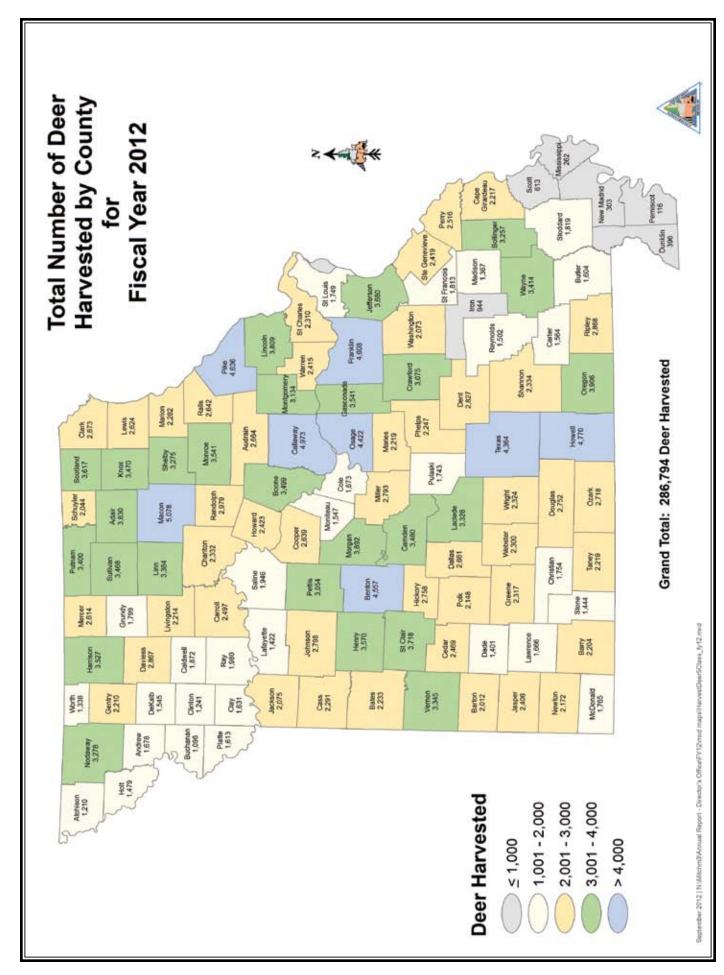
- ▲ Actual Funds Available and Disbursements
- ▲ Number of Deer Harvested by County
- ▲ Number of Turkeys Harvested by County
- ▲ Acres of Conservation Land by County
- ▲ Payment In-lieu of Taxes (PILT) by County
- ▲ County Aid Road Trust (CART) Program
- ▲ Capital Improvement Projects Funding by County
- ▲ Number of Deer and Turkey Permit Holders by County of Residence
- ▲ Number of Fishing Permit Holders by County of Residence
- ▲ Number of Small Game Permit Holders by County of Residence
- ▲ Number of Landowner Deer Permit Holders by County of Residence
- ▲ Number of Landowner Turkey Permit Holders by County of Residence

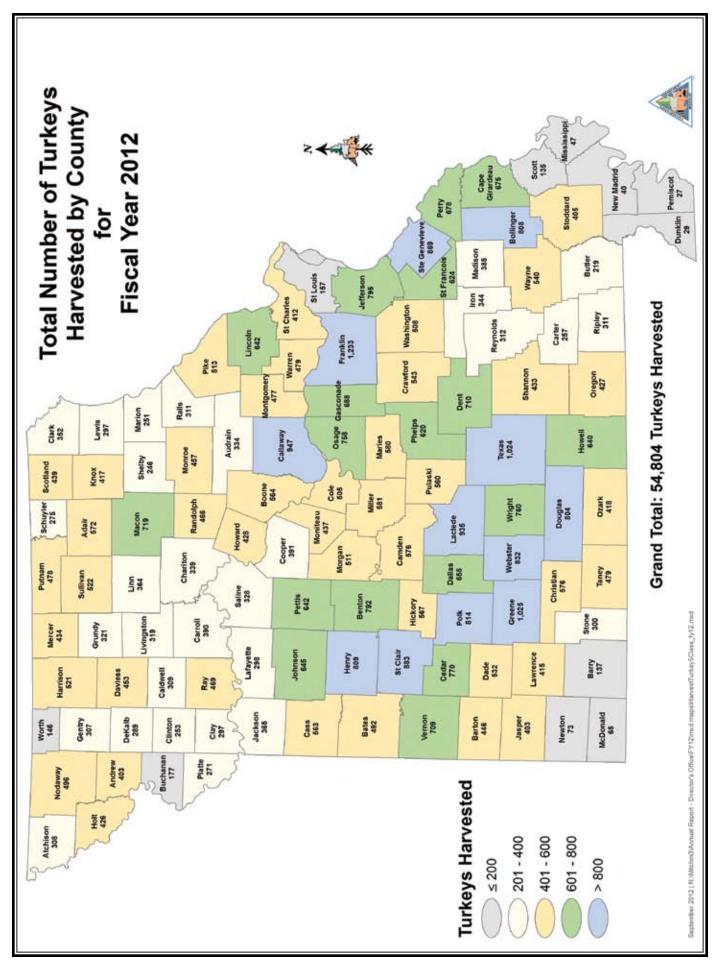
MISSOURI DEPARTMENT OF CONSERVATION

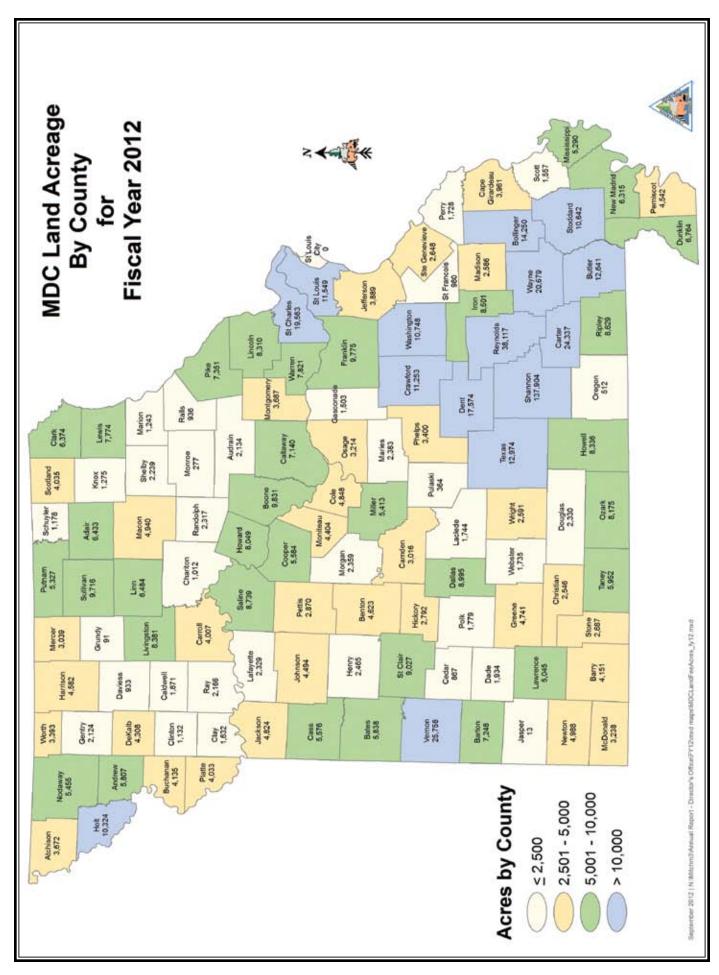
Actual Receipts and Disbursements For Fiscal Year 2012

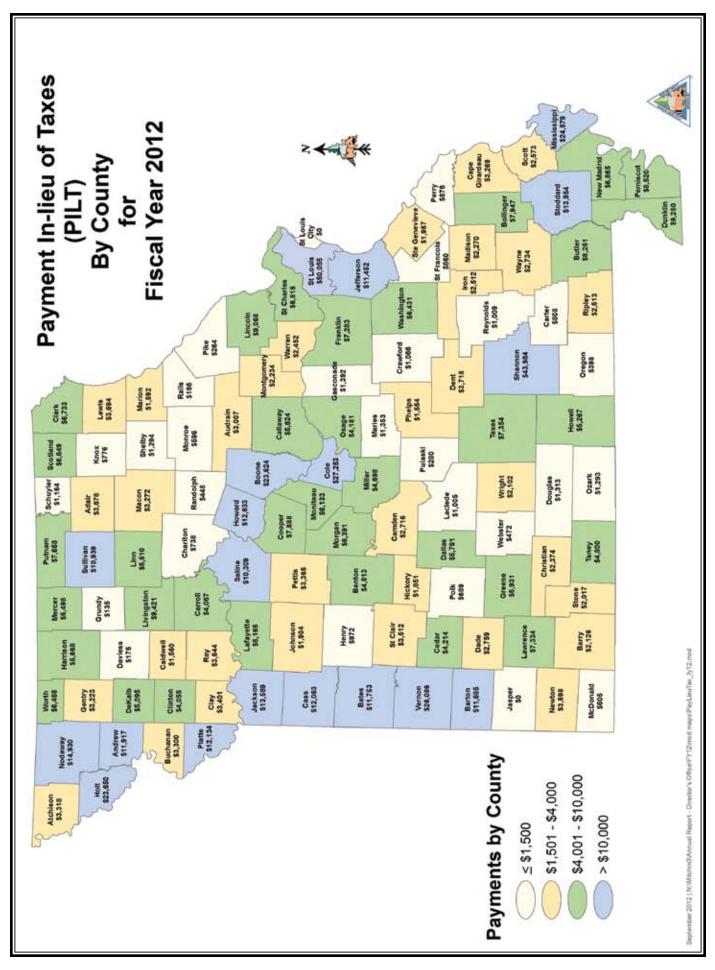
RECEIPTS

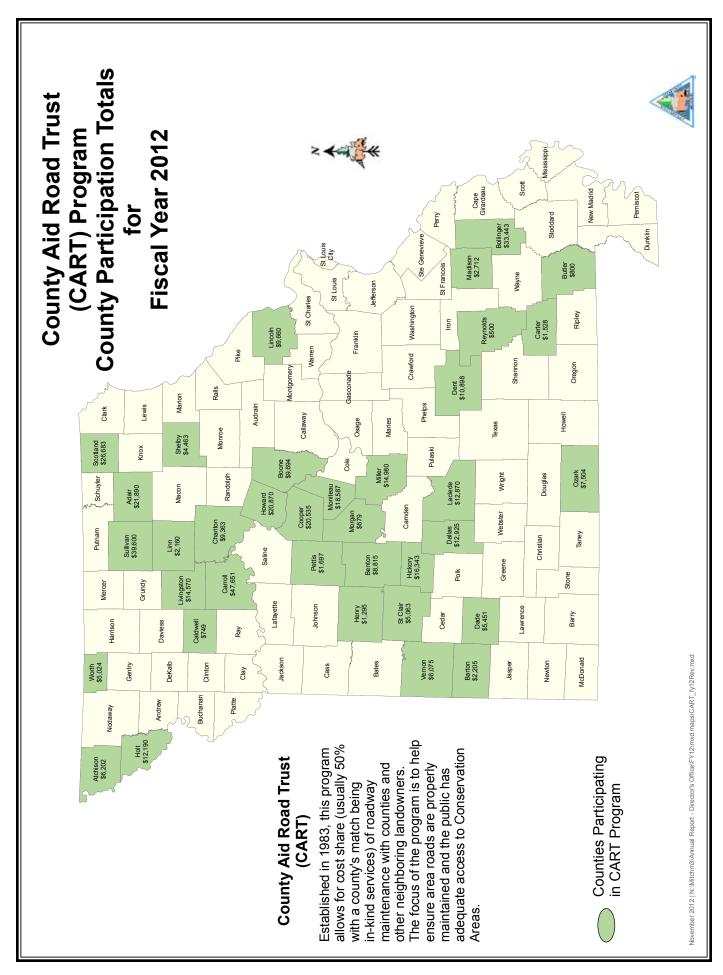
Sales Tax	\$100,566,000
Hunting, Fishing & Commercial Permit Sales	\$31,361,320
Federal Reimbursements	\$25,141,633
Agricultural Sales	\$2,377,608
Timber Sales	\$2,642,195
Other Miscellaneous Receipts	\$1,945,338
Miscellaneous Fees & Tags	\$1,488,725
Surplus Property	\$600,255
Interest	\$308,776
Publication Sales	\$692,105
Nursery Stock Sales	\$855,934
Grants, Gifts, Bequests & Donations	\$425,054
Contractual Services	\$883,787
Rentals	\$20,075
Miscellaneous Sales	\$270,541
Land Sales	\$10,890
Yield Tax & Other taxes	\$1,895
Refunds	\$48,128
Damage Reimbursements	\$15,816
One and a language	
Concession Income	\$11,064
TOTAL RECEIPTS	\$11,064 \$169,667,139
TOTAL RECEIPTS DISBURSEMENTS	\$169,667,139
TOTAL RECEIPTS DISBURSEMENTS County Assistance Payments	\$169,667,139 1,498,157
TOTAL RECEIPTS DISBURSEMENTS	\$169,667,139 1,498,157 18,008,745
TOTAL RECEIPTS DISBURSEMENTS County Assistance Payments Capital Improvements Fisheries	\$169,667,139 1,498,157 18,008,745 12,882,551
TOTAL RECEIPTS DISBURSEMENTS County Assistance Payments Capital Improvements	\$169,667,139 1,498,157 18,008,745 12,882,551 18,438,507
TOTAL RECEIPTS DISBURSEMENTS County Assistance Payments Capital Improvements Fisheries Forestry	\$169,667,139 1,498,157 18,008,745 12,882,551 18,438,507 19,099,360
TOTAL RECEIPTS DISBURSEMENTS County Assistance Payments Capital Improvements Fisheries Forestry Wildlife Outreach & Education	\$169,667,139 1,498,157 18,008,745 12,882,551 18,438,507 19,099,360 15,417,635
DISBURSEMENTS County Assistance Payments Capital Improvements Fisheries Forestry Wildlife Outreach & Education Private Land Services	\$169,667,139 1,498,157 18,008,745 12,882,551 18,438,507 19,099,360 15,417,635 7,307,532
DISBURSEMENTS County Assistance Payments Capital Improvements Fisheries Forestry Wildlife Outreach & Education Private Land Services Protection	\$169,667,139 1,498,157 18,008,745 12,882,551 18,438,507 19,099,360 15,417,635 7,307,532 15,245,000
DISBURSEMENTS County Assistance Payments Capital Improvements Fisheries Forestry Wildlife Outreach & Education Private Land Services Protection Resource Science	\$169,667,139 1,498,157 18,008,745 12,882,551 18,438,507 19,099,360 15,417,635 7,307,532 15,245,000 10,985,166
DISBURSEMENTS County Assistance Payments Capital Improvements Fisheries Forestry Wildlife Outreach & Education Private Land Services Protection	\$169,667,139 1,498,157 18,008,745 12,882,551 18,438,507 19,099,360 15,417,635 7,307,532 15,245,000 10,985,166 2,720,688
DISBURSEMENTS County Assistance Payments Capital Improvements Fisheries Forestry Wildlife Outreach & Education Private Land Services Protection Resource Science Regional Public Contact Offices	\$169,667,139 1,498,157 18,008,745 12,882,551 18,438,507 19,099,360 15,417,635 7,307,532 15,245,000 10,985,166 2,720,688 24,722,804
DISBURSEMENTS County Assistance Payments Capital Improvements Fisheries Forestry Wildlife Outreach & Education Private Land Services Protection Resource Science Regional Public Contact Offices Administrative Services Human Resources	\$169,667,139 1,498,157 18,008,745 12,882,551 18,438,507 19,099,360 15,417,635 7,307,532 15,245,000 10,985,166 2,720,688 24,722,804 2,499,008
DISBURSEMENTS County Assistance Payments Capital Improvements Fisheries Forestry Wildlife Outreach & Education Private Land Services Protection Resource Science Regional Public Contact Offices Administrative Services	\$169,667,139 1,498,157 18,008,745 12,882,551 18,438,507 19,099,360 15,417,635 7,307,532 15,245,000 10,985,166 2,720,688 24,722,804 2,499,008 12,464,762
DISBURSEMENTS County Assistance Payments Capital Improvements Fisheries Forestry Wildlife Outreach & Education Private Land Services Protection Resource Science Regional Public Contact Offices Administrative Services Human Resources Design & Development	\$169,667,139 1,498,157 18,008,745 12,882,551 18,438,507 19,099,360 15,417,635 7,307,532 15,245,000 10,985,166 2,720,688 24,722,804 2,499,008

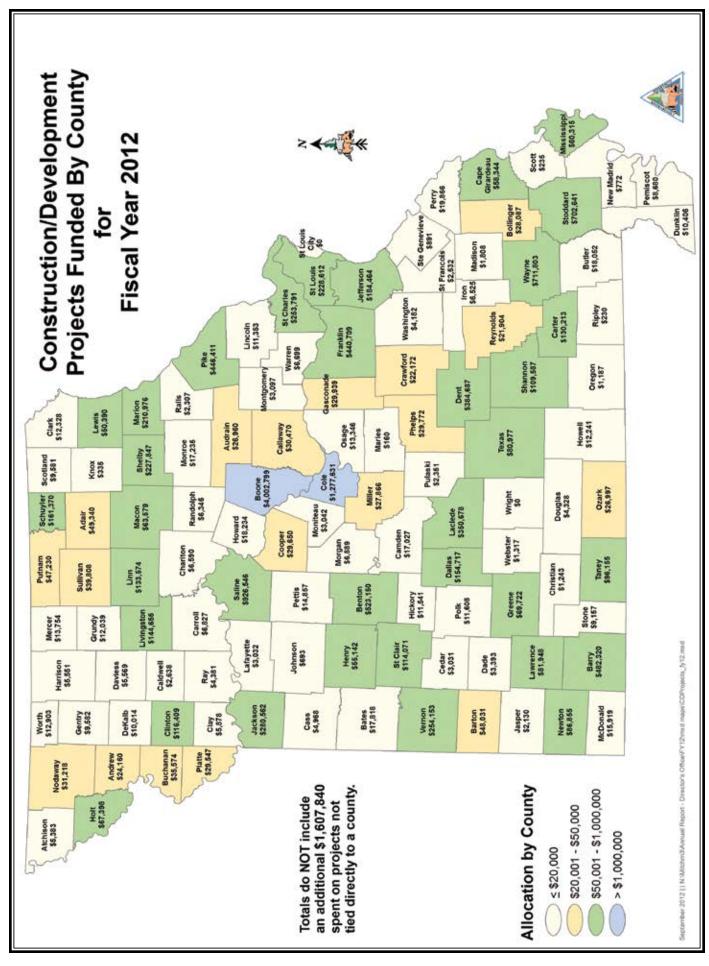


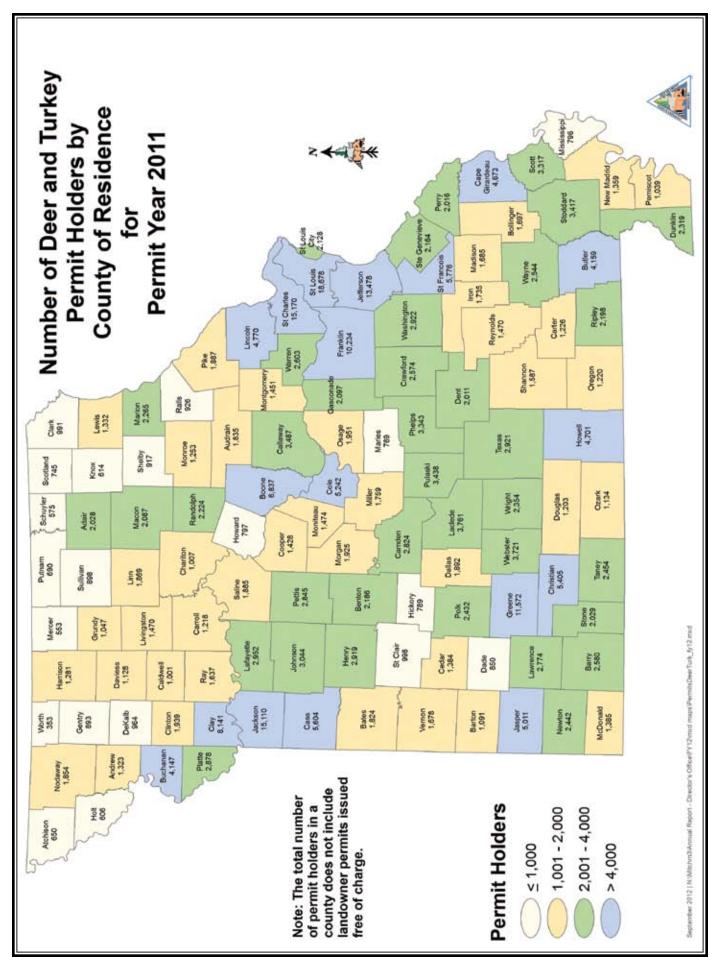


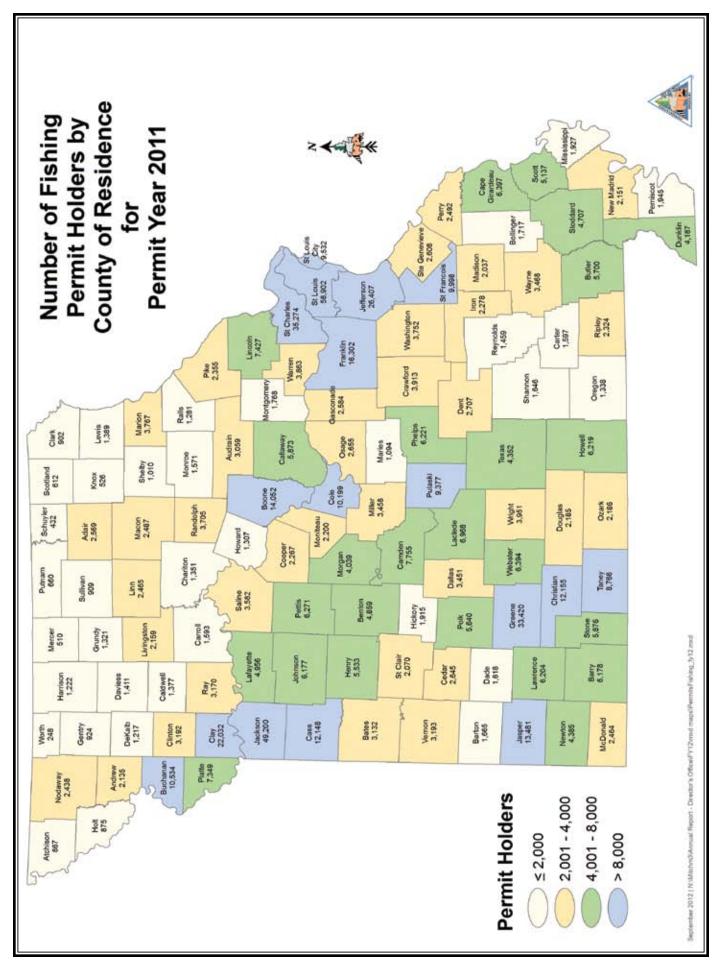


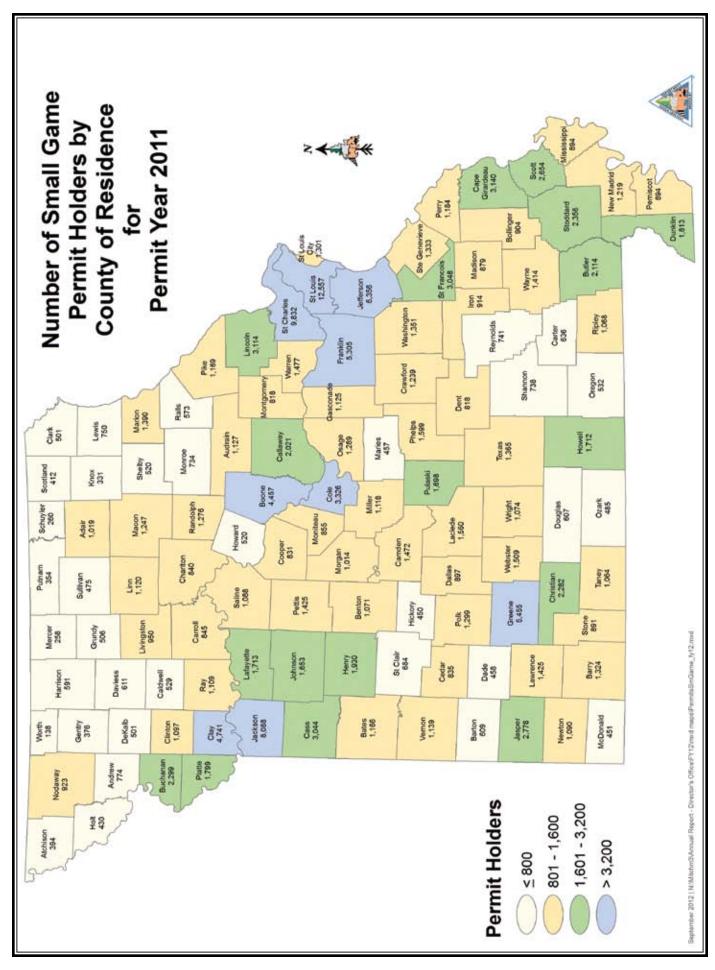


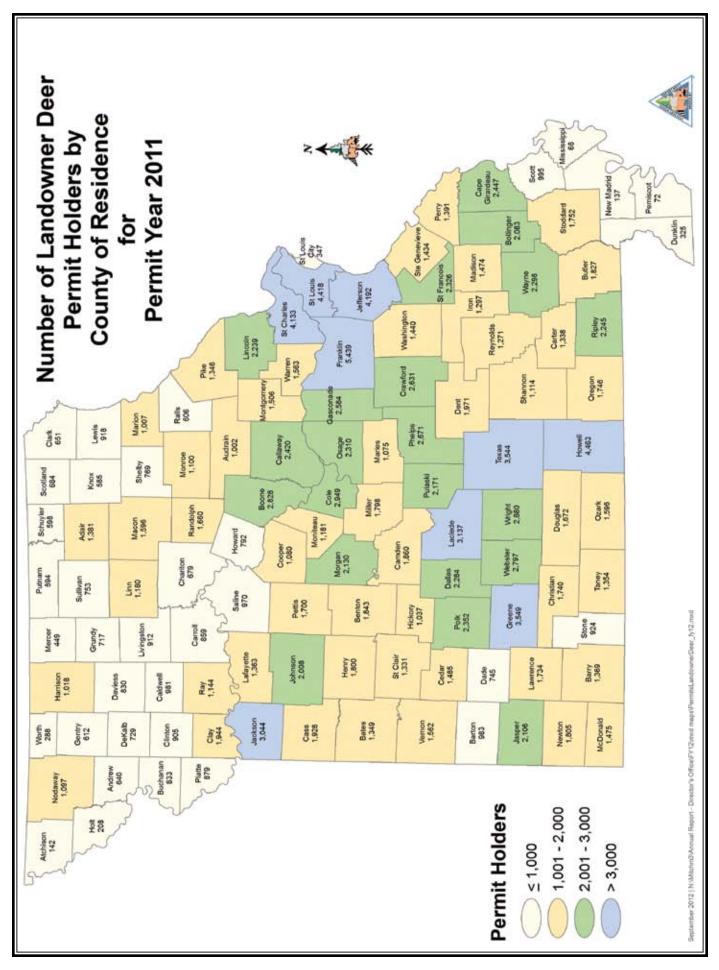


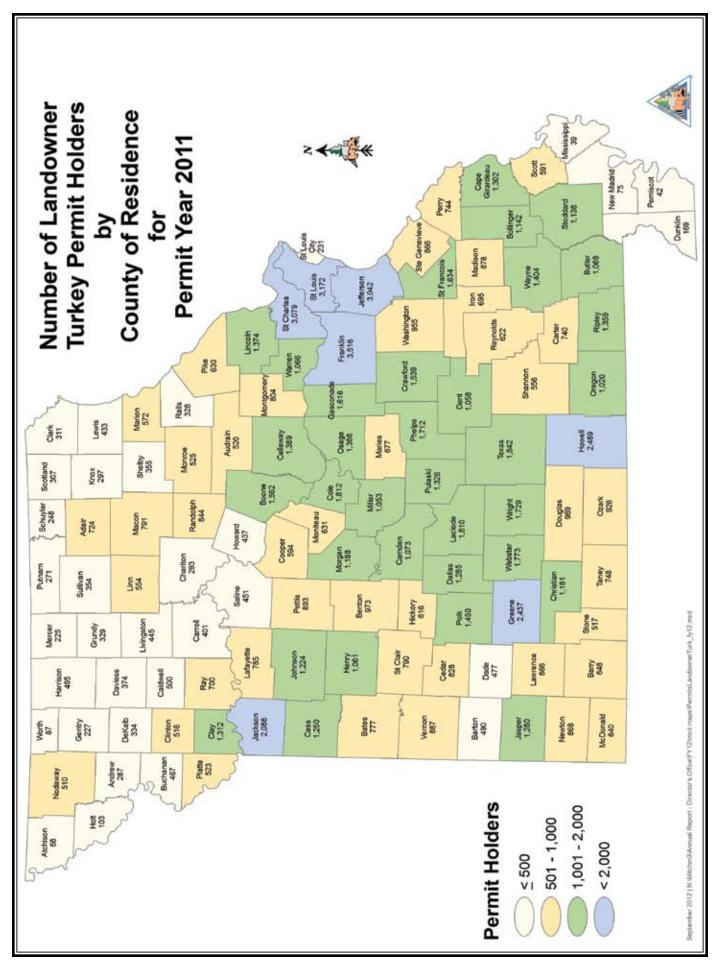












Ensure healthy and sustainable forest, fish, and wildlife resources

Manage public lands to benefit citizens and forest, fish, and wildlife MISSOURI STM

Engage partners to enhance natural resources and effective delivery of services

Ensure sound financial accountability and transparency

Provide opportunities for citizen involvement in services and conservation education